CORPORATE GOVERNANCE MECHANISMS AND FIRM PERFORMANCE OF INDONESIAN FAMILY-CONTROLLED AND NON-FAMILY CONTROLLED COMPANIES

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ABSTRACT

This study investigates the relationship between corporate governance mechanisms and performance of Indonesian listed companies. Using panel data approach, the sample consists of 262 companies listed on the Indonesian Stock Exchange for the period between 2010 to 2014. The results show that Indonesian family-controlled companies have better performance than non-family-controlled companies. However, not all attributes of corporate governance mechanisms are significant between family-controlled companies and non-family controlled companies. It is found that larger boards increase the performance of non-family-controlled companies due to their ability to generate more ideas and provide more advice, experience and knowledge, which cannot be found in family directors. Family-controlled companies tend to have small boards; thus, they can make decisions quickly and more easily. Qualifications of directors in larger boards, frequency of board meetings, board expertise and the presence of female directors lead to enhanced performance, both for family-controlled companies and non-family-controlled companies. Boards with higher education and expertise, presence of female directors and more frequent board meetings can provide creative solutions, solve complex problems and improve performance. Directors who hold large managerial ownership tend to concentrate more on personal interests, whilst small board commissioners control the opportunistic behaviour of management and bridge the interests of managers and owners. The findings also suggest that smaller audit committee and higher frequency of audit committee meetings increase the performance of both family- and non-family-controlled companies. On the other hand, the findings show that smaller size of independent audit committee enhance performance for family-controlled companies while larger size for non-family-controlled companies. Thus, regulators need to note the different corporate governance practices between family- and non-family-controlled companies. It is recommended that a pool of independent commissioners with knowledge and experience in enhancing better corporate governance mechanisms be appointed for companies in Indonesia.

Keywords: corporate governance mechanisms, family-controlled companies, firm performance, Indonesia.

ABSTRAK

Kajian ini mengkaji hubungan di antara mekanisme tadbir urus korporat dan prestasi syarikat di kalangan Syarikat Tersenarai di Indonesia. Dengan menggunakan pendekatan data panel, sampel kajian terdiri dari 262 syarikat yang tersenarai di Bursa Saham Indonesia bagi tempoh 2010 ke 2014. Hasil kajian menunjukkan bahawa syarikat kawalan keluarga di Indonesia mempunyai prestasi yang lebih kukuh berbanding syarikat bukan kawalan keluarga.Walau bagaimanapun, tidak semua sifat-sifat mekanisme tadbir urus korporat mempamerkan perbezaan yang signifikan antara syarikat kawalan dan bukan kawalan keluarga. Saiz lembaga pengarah yang besar meningkatkan prestasi syarikat bukan kawalan keluarga kerana mempunyai lebih banyak idea dan nasihat, pengalaman dan pengetahuan yang tidak terdapat pada pengarah syarikat kawalan keluarga. Syarikat kawalan keluarga mempunyai saiz lembaga pengarah yang kecil, dan membolehkan mereka membuat keputusan dengan cepat dan tepat. Lembaga pengarah yang berkelayakan, kekerapan mesyuarat lembaga pengarah, pakar bidang dan pengarah wanita meningkatkan prestasi syarikat kawalan dan bukan kawalan keluarga. Pengarah yang mempunyai pendidikan tinggi, pakar bidang, pengarah wanita dan kekerapan mesyuarat lembaga pengarah yang tinggi boleh memberikan penyelesaian kreatif, menyelesaikan masalah yang kompleks serta meningkatkan prestasi syarikat. Pengarah yang memiliki pegangan saham syarikat yang besar lebih cenderung untuk menumpukan perhatian kepada kepentingan peribadi, manakala saiz pesuruhjaya lembaga pengarah yang kecil mampu mengawal pengurusan dari mengambil kesempatan dan merapatkan kepentingan pengurus dan pemilik. Dapatan kajian menunjukkan jawatan kuasa audit yang kecil dan peningkatan kekerapan mesyuarat jawatan kuasa audit mampu meningkatkan prestasi syarikat kawalan dan bukan kawalan keluarga. Sebaliknya, dapatan menunjukkan saiz kebebasan jawatan kuasa audit yang lebih kecil meningkatkan prestasi bagi syarikat kawalan keluarga, manakala saiz yang lebih besar bagi bukan kawalan keluarga. Oleh itu, pihak berkuasa perlu mengambil perhatian tentang amalan tadbir urus korporat yang berbeza di antara syarikat kawalan keluarga dan bukan kawalan keluarga. Disarankan sekumpulan pesuruhjaya bebas yang berpengetahuan dan berpengalaman dilantik bagi meningkatkan mekanisme tadbir urus korporat bagi syarikat-syarikat di Indonesia.

Kata kunci: mekanisme tadbir urus korporat, syarikat kawalan keluarga, prestasi syarikat, Indonesia.

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LIST OF ABRREVIATIONS

AoA	: Articles of Association
Bapepam	: The Capital Market and Non-Bank Financial Sector Regulator
CEO	: Chief Executive Officer
FCCG	: High Level Finance Committee on Corporate Governance
GCG	: Good Corporate Governance
GDP	: Gross Domestic Product
GLS	: Generalised Least Square
ICL	: International Constitutional Law
ICMD	: Indonesia Capital Market Directory
IDX	: Internet Data Exchange
IFC	: International Finance Corporation
NCG	: National Committee on Governance
OECD	: The Organizations for Economic Cooperation and Development
PER	: Price Earnings Ratio
PLCs	: Public Listed Companies
Q	: Tobin's Q
ROE	: Return on Equity
Rp	: Rupiah
SOEs	: State-Owned Enterprise
The Code	: The Indonesian Code of Corporate Governance
UK	: United Kingdom
US	: United States

CHAPTER 1

INTRODUCTION

1.1 Overview of the Chapter

This chapter comprises eight sections. Section 1.2 discusses the background of family and non-family controlled company performance, ownership structure and good corporate governance mechanisms as well as the motivation for the study; Section 1.3 discusses the problem statement; Section 1.4 presents the research questions; and Section 1.5 presents the research objectives. In Section 1.6, the significance of the study is explained. Section 1.7 describes the scope and limitations of the study. Finally, the last section 1.8 provides the organization of the thesis.

1.2 Background and Motivation for the Study

The Asia financial crisis of 1997 grew into a multi-dimensional crisis, forcing many large companies into bankruptcy; claims have been made that one of the primary reasons for the financial crisis was weak corporate governance. Steiner and Steiner (2006) defined corporate governance as a set of guidelines by which a firm is managed, including the objectives, strategy and planning structure, with a view to achieve the interests of stakeholders and enhancing firm performance. Some have argued that the level of performance depends on good corporate governance practices in the company (Obradovich & Gill, 2013; Arora & Sharma, 2016). Good corporate governance can raise the confidence of investors so that they can invest their funds and achieve appropriate returns on their investments (Yopie & Itan, 2016). Corporate governance is a mechanism for regulating the relationship among shareholders,

management board and other stakeholders to effectively enhance a company's performance and achieve the best interests of stakeholders (Hai & Lien, 2012). It is on this premise and evidence that this study focuses on the importance of corporate governance.

Corporate governance mechanisms are often used to deal with problems related to the company's stakeholders. To address or solve these problems, companies often rely on large shareholders to make decisions. Usually, family-controlled companies have large shareholders who hold a large block of shares in Indonesia (Singapurwoko, 2013; Itan, 2015). A business is classified as a family-controlled company if a family director or a group of family members has ownership of a minimum of 20% and is the largest controlling blockholder in the company (Yopie & Itan, 2016).

The study of the governance of family-controlled companies in Indonesia is important because it contributes significantly to the Gross Domestic Product (GDP) of the country (Darmadi, 2012). Family-controlled companies contribute more than half to Indonesia's economic growth (Darmadi, 2012). Therefore, the study of family-controlled companies is a vital element in this current study.

A family-controlled company tends to have the desire to stay strong to hand over the company to the next generation (Shleifer & Vishny, 1997; Miller & Le- Breton-Miller, 2005a, 2005b). Thus, a strong corporate governance structure is necessary for the family-controlled companies to maintain the viability of both the family and business. This causes a family-controlled company to have a long-term investment horizon (Yasser, 2011), which can bring in high returns and increase the value of the company

(Miller & LeBreton-Miller, 2006). Often, a family-controlled company has a competitive advantage because it is usually stable and focuses on profitability and long-term value (Ismail & Mahfouz, 2009).

Family-controlled companies are often found in East Asian countries, and one of those countries is Indonesia. Claessens, Djankov, and Lang (2000) studied 2,980 corporations in nine Asian countries. They argued that a single shareholder controlled more than two-thirds of the firms. Furthermore, the agents of closely held companies tend to be relatives of the controlling shareholder's family, and that older firms are generally family-controlled, dispelling the notion that ownership becomes dispersed over time. Amran and Che-Ahmad (2011) revealed that higher family ownership in a firm can increase the firm's performance and enhance the family's wealth. Furthermore, family-controlled companies are more concerned with their next generation, specifically the reputation of company, and they will not place the family's wealth at stake. Because of this, the board of directors in these companies will try to decrease current consumption by paying lower dividends (James, 1999; Miller & Le-Breton-Miller, 2005a, 2005b). In contrast, the non-family controlled companies will be more likely to engage in current consumption, such as profit sharing, dividends and compensation payments (Carney, 2005; Darmadi, 2013).

A family-controlled company usually starts as a small company operating locally. Over time, some family-controlled companies evolve into large companies and successfully compete with other leading public companies in the world (Itan, 2015). As a family-controlled company experiences transformation through a process of regeneration, the focus of the family business shifts from short-term to long-term

survival with greater diversification, internationalization and professionalization (Darmadi, 2012).

Previous researchers have conducted studies about the influence of the attributes of the board of directors on company performance in Indonesia (Prabowo & Simpson, 2011; Darmadi, 2012; Yopie & Itan, 2016; Naimah & Hamidah, 2017). However, very few studies exist on board of commissioners' attributes and company performance in Indonesia. Indonesia is unique because the country has a two-tier board system, comprising the board of directors and board of commissioners. Hence, besides examining the board of directors' attributes, this study also examines the board of commissioners' attributes, such as independence of board commissioners (unaffiliated directors). Based on previous researchers (Prabowo & Simpson, 2011; Yopie & Itan, 2016; Naimah & Hamidah, 2017), board of directors and board of commissioners have influence on the performance of Indonesian companies.

The implementation of two-tier board system (board of director and board of commissioner) applies not only in Indonesia, but also in several countries in the world continue to uphold this system, such as China, Germany, Japan, Taiwan, Denmark, Netherlands and France (Yeh, Taylor & Hoye, 2009). However, two-tier board systems in Indonesia have different characteristics in comparison with those in other countries. For example, the position of supervisory board are more likely to be passive, not involved in the management and serve as an advisor to monitor the board of director in the management of the company. Board of commissioner cannot suspend a member of the board of director although the board were elected by the board of commissioner. Instead, board of director membership can only be suspended

by general meeting of shareholders. Board of commissioner members are also given the authorization to give approval for certain decisions made by the board of director such as bank loans that require security of company assets. Based on the above discussion, the board of commissioner in Indonesia has power to supervise the board of director's decision (Arifai, Tran, Molespour & Wong, 2018).

Board of commissioner's power in the constitution also recommends appointing the members of audit committees to assist the board of commissioner in terms of monitoring the financial firms. This power can influence the shareholder interest to place its representative as an agent that can protect the owners' interests. In line with this, Siregar and Sidharta (2008) found that the board of commissioner in Indonesia was dominated by the majority shareholder, as a result, members of the board of commissioner are less free to expropriate shareholders' interests. These findings suggest that there was a high affiliate relationship between the shareholders and board of commssioner members in Indonesia. The effectiveness of board of commissioner on family involvement can be viewed from a positive perspective. The board of commissioner function as supervisor and adviser to the board of director. Findings from previous studies have shown the importance of monitoring efforts to mitigate opportunistic behavior affecting the interests of shareholders, and the presence of the family in the board of commissioner is expected to maximize the functions of supervision and give positive impact on firm performance (Arifai et al., 2018).

The next issue addressed in this study is audit committee characteristics. The main task of an audit committee is to advise the firm's financial performance and reporting. The audit committee also looks into matters, such as directors' remuneration,

selection, removal, scope of work and independence, in addition to resolving internal conflicts. Audit committees also review and agree upon the chosen accounting policies, including the adoption of the right standards and practices for financial reporting and disclosure of audit and financial reports (Code, 2006).

Besides monitoring the company's accounting processes, the audit committee ensures that the company adheres to the relevant legislation, ethics and controls to prevent the occurrence of fraud (Hamid, Othman & Rahim, 2014). Therefore, this study examines the variables of the board of directors' attributes (board size, board qualification, board meetings, board diversity, board expertise and managerial ownership); board of commissioners' attributes (number of board commissioners and the independence of commissioners (unaffiliated directors)); and of audit committee characteristics (audit committee size, audit committee independence and audit committee meetings) that are lacking in previous studies in the Indonesian setting.

Hence, there are gaps that need to be bridged. These variables are presumed to have an influence on the performance of firms listed on the Indonesian Stock Exchange. The gap motivated the researcher to examine the impact of the relationship of the board of directors' attributes, board of commissioners' attributes and audit committee characteristics and the performance of Indonesian companies. The researcher has found that very few studies have been conducted in Indonesia on these two variables: 1) independence of board of commissioners (unaffiliated directors); and 2) board expertise. The Corporate Governance (CG) Code (2006) in Indonesia requires directors that serve in a company to have qualifications and expertise in order to help

the company to achieve its goals and enhance performance. Therefore, board expertise is also considered in this study.

This study measures firm performance from two perspectives: 1) accounting-approach; and 2) market-approach measures. A company's performance can be measured by using an external approach (market-based) and internal approach (accounting-based). The accounting approach measurement is Return on Equity (ROE); while the market-approach measurement is Tobin's Q (Q). The two approaches are adopted in this study because claims have been made that accounting-based measures are open to manipulation by managers. Thus, both types of measures are used in this study to ensure robustness of the results.

This study is expected to be able to fill the existing gaps by using panel data to determine the relationship of the attributes of board of directors, the attributes of board of commissioners and audit committee characteristics and firm performance. In contrast, previous studies (Villalonga & Amit, 2006; Andres, 2008; Chu, 2009; Lin & Chang, 2010; Amran & Che-Ahmad, 2011) have focused on corporate governance issues in their countries. This study concentrates specifically on comparing family-controlled companies and non-family controlled companies in Indonesia.

1.3 Problem Statement

A family-controlled firm is identified as a company that passes from one generation to the next generation, and in order to be successful, family-controlled firms must maintain and reach the company's goals for continuing the family business. Therefore, the dynamics of transition in a family company plays an important role in

guaranteeing the sustainability of the firm (Darmadi, 2012; Surifah, 2012; Singapurwoko, 2013; Yopie & Itan, 2016). Sustainability is related to the existence of a company and to its performance over time. Local studies have found that Indonesian family companies play a large role in enhancing the economic growth of a country (Darmadi, 2012; Singapurwoko, 2013), whereby family companies contribute around 45% to 70% of the growth in GDP and create employment opportunities (Darmadi, 2012).

Majority of firms in Indonesia started from traditional local family-controlled companies and evolved into big enterprises, and then were successfully listed on the Indonesian Stock Exchange. Indonesia has several prominent Indonesian family businessmen, like Mr. Lim Sui Liong, owner of the Salim group, Mr. Mochtar Riady, owner of the Lippo group, Mr. Eka Cipta Wijaya, owner of the Sinarmas group and Mr. Chairul, owner of the Para Group.

Although Indonesian listed firms were characterized with higher family holdings, there are limited studies which address the managerial ownership and involvement. According to Indonesia's Company Law, all Indonesian firms are required to adopt two-tier boards system in the organizational structure of the firm. This system puts the responsibility of the management in the hands of management board, board of directors, while responsibilities in maintaining board of director's work are carried out by supervisory board, board of commissioners. Many previous studies looking at the effects of ownership and family involvement in management have been accomplished in countries with one-tier board system and found mixed findings (Millet, Reyes & Zhao, 2010; Alizadeh, Chashmi & Bahnamiri, 2014). Some studies discovered that

family involvements in the board of directors can help monitoring of management and reduce agency costs (Schleifer & Vishny, 1986; O'Boyle Jr, Pollack & Rutherford, 2012). However, other studies discovered a negative effect of family involvement (Cronqvist & Nilsson, 2003; Barth, Gulbrandsen & Schønea, 2005; Adhami & Asgari, 2013). Many questions regarding the impact of family involvement in two-tier boards in Indonesian firms are still unanswered.

In Indonesia, it has been found that firm performance of family-controlled firms is better than non-family controlled firms (Sujoko & Sobiantoro, 2000; Darmadi, 2013; Harjito & Singapurwoko, 2014). However, little empirical evidence exists that can verify and support this claim. Yopie and Itan (2016) found that companies with non-professional family directors have higher performance compared to companies with professional family directors. He claimed that family directors tend to have longer tenure and lower education level compared to professional non-family directors. Moreover, he found that professional family directors have failed to manage professionally because they lack the will. On the other hand, Sujoko and Sobiantoro (2007), Darmadi (2013) and Harjito and Singapurwoko (2014) argued to the contrary. Sujoko and Sobiantoro (2007) and Darmadi (2013) claimed that it is important to have family directors to enhance performance of the company. The reason is family spirit is reflected in a firms' strategy and it brings about higher profitability. Harjito and Singapurwoko (2014) stated that family-controlled companies tend to minimize the agency problems between agents and principals, and thus, minimize agency costs. Due to these issues, this current study examines whether or not Indonesian listed family-controlled firms have better performance than non-family controlled firms.

In terms of surviving global competition, managers must not just focus on how to increase benefits and expand the company's subsidiaries. A businessman must maintain a good relationship with several related parties, such as the government, shareholders, managers and employees and maintain a conducive environment. He or she must disclose reliable and transparent corporate reporting and activities (Itan, 2015). Therefore, a company needs guidelines and concepts to maintain and enhance performance through good corporate governance.

The agency theory is one of the fundamental theories in corporate governance that relates to organizational behavior even though it was introduced by a financial economist (Jensen & Meckling, 1976). The agency theory is a supposition that explains the relationship between majority shareholders and minority shareholders, where the majority shareholders elect the agent to provide the services on his or her behalf. For organizations, agency problems occur when the majority shareholders have power to make their own decision for company and neglect the interest for minority shareholders. With powerful and holding significant numbers of shares in a company, directors are subject to monitoring and supervision, which can increase agency cost. Thus, it may lead to decrease in firm performance and value of the majority shareholders' investment. This misaligned interest between the majority and minority shareholders leads to Type II agency problem. In ensuring the interest of the shareholders, corporate governance mechanisms help to monitor and control agent behavior.

Another relevant theory in corporate governance is the stewardship theory, whereby agents are considered as good stewards and do the best to achieve the interests of

shareholders. In this theory, the stewards are the family owners; thus, they will work hard and protect their business survival by having substantial shares. The agents/stewards are viewed as loyal to shareholders and strive to achieve high performance for the company. Thus, to maintain harmonization between principal and agent, stewardship needs to be blended with good corporate governance mechanisms.

Corporate governance is an important element for achieving high performance, and good corporate governance mechanisms have led to some companies having better performance than others. Thus, the researcher also examines mechanisms of corporate governance in both family-controlled and non-family controlled firms. The questions that this study seeks to answer are: 1) 'What type of firms, family-controlled or non-family controlled, have higher firm performance?'; and 2) 'Are there any relationships between corporate governance mechanims, such as attributes of the board of directors (board size, board qualification, board meetings, females on the board, board expertise and managerial ownership); attributes of the board of commissioners (size and independence of board of commissioners); and audit committee characteristics (audit committee size, audit committee independence and audit committee meetings) and firm performance?'.

For board composition in Indonesia, the CG Code (2006) requires that the board of directors should comprise at least three directors who are responsible to both the board of commissioners and shareholders (Widanarni & Aida, 2007). The duties of the board of commissioners include supervising all actions of the board of directors. Hence, its function is non-executive. Another requirement of the Code (2006) is that a minimum of 30% of the total number of commissioners should be independent

commissioners with at least one unaffiliated commissioner (Darmadi, 2012). All these factors motivate the researcher to examine whether or not there is a significant relationship between the two-tier board system of family-controlled and non-family controlled companies.

The CG Code (2006) also requires that the board structure in Indonesian companies must have directors who have high education and professional skills for running the companies. The directors are also required to attend the meetings with commissioners to discuss problems the company faces and identify solutions and strategies. It is important for companies to equip themselves to face global competition.

One of the important board attributes that can influence the performance of a board director is the presence of female directors (Kusumastuti, Supatmi, & Sastra, 2012; Darmadi, 2013; Vania & Supatmi, 2014). In this study, the researcher examines the relationship between female directors on the board structure and firm performance. The number of female directors on the board is increasing in Indonesian companies (Darmadi, 2013). Several studies (Kusumastuti et al., 2012; Vania & Supatmi, 2014) have demonstrated support for gender diversity on the board. From the perspective of corporate governance, diversity can build a balance on the board and ensure decisions are not male-dominated (Vania & Supatmi, 2014). Gender diversity may be able to improve firm value and performance (Darmadi, 2013).

This study also attempts to discover if managerial ownership has an impact on firm performance in Indonesian listed companies. The trend of managerial ownership in Indonesian companies is that families own the highest concentration of shares and

family members are the largest shareholders who hold positions, such as managers and directors (Claessens et al., 2000; Achmad, Rusmin, Neilson & Tower, 2009; Itan, 2015). Thus, minority shareholders are often at a disadvantage because family members are the largest shareholders, and major shareholders have the power to make decisions in their own interests to the detriment of the minority shareholders. Furthermore, family-owned company managers are rewarded with managerial shares to align their interests and increase the shareholders' wealth. Hence, based on the issues above, this study considers whether or not managerial ownership has a relationship with firm performance.

Several studies have mentioned that both managerial ownership and family involvement in a company affect performance positively. Some research has found that family-controlled firms create value and profits for the company when the company is still controlled by its founder (Itan, 2015). Several studies on companies in Indonesia have shown companies that are controlled by influential family members significantly contribute to performance and that a company controlled by the family will be more innovative in developing the company (Sujoko & Soebiantoro, 2007; Ismail & Mahfodz, 2009; Dewantoro, 2011).

Conversely, some researchers have stated that family control does not positively impact firm performance. Several studies have mentioned that the family-controlled firms merely focus on maximizing profits (Yuliani, 2012), avoiding risks (Surifah, 2013) and dominating the decision-making process (Prabowo & Simpson, 2011), thereby giving less attention to other external factors that can facilitate the acquisition of more resources. In brief, family-controlled companies negatively affect the

performance and value of the company (Prabowo & Simpson, 2011; Yuliani, 2012; Surifah, 2013).

Another question in this study is, "Do audit committee characteristics have a relationship with firm performance in Indonesian listed companies?". The CG Code in Indonesia requires publicly listed companies in Indonesia to have an audit committee. The role of the audit committee is to provide an independent opinion based on the members' professional judgement and report relevant matters to the board of commissioners to identify and solve problems faced by the company toward achieving high performance (Naimah & Hamidah, 2017).

The audit committee is a very important component of the board structure due to its specific role of protecting the interests of shareholders in relation to financial oversight and control (Al-Matari, Al-Swidi, & Fadzil, 2014; Naimah & Hamidah, 2017). The primary function of the audit committee is to oversee the firm's financial reporting process, review financial reports, control internal accounting, carry out audit and monitor management practices (Klein, 2002). The above matter is true about audit committees of Indonesian companies whose duties have grown bigger after the adoption of several CG Codes (Naimah & Hamidah, 2017). The Indonesian CG Code adopted in 2006 sets out the recommendations regarding audit committees in Indonesia.

Implementation of good corporate governance can be measured by several indicators or variables, both from the accounting perspective and market perspective. Assessment of companies is often based on the market price of the stocks, and the

good performance of a company can maximize prosperity for shareholders, eventually increasing the company's share price. If the share price increases, so does shareholders' wealth. To achieve good performance, shareholders insist managers to engage with strong corporate governance.

This study needs to be conducted in order to understand how corporate governance mechanisms can play a role in the relationship with firm performance. Knowledge on the influence of corporate governance on firm performance is incomplete if researchers do not know about the mechanisms that drive firm performance. This study analyses the relationship between family-controlled companies and internal corporate governance mechanisms, such as the attributes of the board of directors and the board of commissioners and audit committee characteristics and firm performance. This current study measures several variables, such as attributes of the board of directors (board size, board qualification, board meetings, female on board, board expertise and managerial ownership); attributes of the board of commissioners (board size, independence (unaffiliated directors)); and audit committee characteristics (audit committee size, audit committee independence and audit committee meetings). Firm performance variables are measured using ROE and Tobin's Q (Q).

1.4 Research Questions

Based on the attributes of board of directors and board of commissioners and the characteristics of the audit committees, the following research questions are posed in this study.

1. Is there any difference in firm performance between family-controlled companies and non-family controlled companies listed on the Indonesian Stock Exchange?
2. Is there any relationship between attributes of board of directors of family-controlled companies and non-family controlled companies listed on the Indonesian Stock Exchange and firm performance?
3. Is there any relationship between the attributes of board of commissioners in family-controlled companies and non-family controlled companies listed on the Indonesian Stock Exchange and firm performance?
4. Is there any relationship between the characteristics of audit committee in family-controlled companies and non-family controlled companies listed on the Indonesian Stock Exchange and firm performance?

1.5 Research Objectives

This research focuses on attributes of board of directors and board of commissioners and audit committee characteristics. Specially, the objectives of this study are:

1. To examine the difference between firm performance of family-controlled companies and non-family controlled companies listed on the Indonesian Stock Exchange.

2. To examine the relationship between the attributes of board of directors of family-controlled companies and non-family controlled companies listed on the Indonesian Stock Exchange and firm performance;
3. To examine the relationship between the attributes of board of commissioners of family-controlled companies and non-family controlled companies listed on the Indonesian Stock Exchange and firm performance; and
4. To examine the relationship between audit committee characteristics of family-controlled companies and non-family controlled companies listed on the Indonesian Stock Exchange and firm performance.

1.6 Significance of The Study

The significance of this study is discussed from the aspects of contributions to literature and theoretical, methodological and practical aspects.

1.6.1 Literature Aspect

Studies on the influence of family-controlled and non-family controlled firms with respect to the attributes of boards of directors, the attributes of boards of commissioners and the characteristics of audit committee on firm performance have been examined in Asian countries, such as Thailand, Singapore, Hong Kong and Malaysia. In Indonesia, such studies on family-controlled and non-family controlled firms are lacking. Thus, by conducting this study, the findings will help enrich information related to the impact of internal mechanisms of corporate governance on firm performance, particularly in public listed companies on the Indonesian Stock Exchange which are used as the sample in this study. Thus, the findings of this study

provide more information and can be compared to family-controlled firms in other ASEAN countries.

Currently, very few studies exist on the function and impact of board attributes in Indonesia. Therefore, the findings of this study may provide valuable insights into family-controlled and non-family controlled firms in Indonesia. This study also provides useful information on family ownership and corporate governance and how good firm performance can be achieved by Indonesian companies.

1.6.2 Theoretical Aspect

This study highlights theories underlying corporate governance, specifically the agency theory and the stewardship theory in relationship to the performance of family and non-family controlled firms. Eddleston and Kellermans (2007) discussed stewardship theory with respect to family companies. Further, the stewardship theory was utilized by Eddleston and Kellermans (2007) to explain the reason for some family-controlled firms flourishing while other family-controlled firms being plagued by conflict. Their results suggest that a participative strategy process is positively related and conflict is negatively linked to family-controlled firm performance.

1.6.3 Methodology Aspect

This study uses secondary data and applies panel data from 2010 to 2014. A panel data approach was adopted, and secondary data was gathered through the IDX database, the Indonesian Capital Market Directory (ICMD) and finance.yahoo.com, to obtain financial statement data and last stock prices for the years concerned. For measurement, this research makes a comparative study of the governance of the selected Indonesian family and non-family controlled firms using the CG Code in

Indonesia and corporate governance factors, such as board size and independent commissioners as has been done in several previous studies (La Porta, Lopez-De-Silanes & Shleifer, 1999; Ibrahim, Samad, & Amir, 2009; Itan, 2015).

The methodological contribution of this study is the inclusion of new variable, i.e., board expertise. Previous studies (Darmadi, 2012; Prabowo & Simpson, 2011; Surifah, 2013) have focused on female directors and board directors' education. Those studies have not tested the relationship of board expertise and firm performance in Indonesia. Therefore, this study considers board expertise as a new contribution in relation to corporate governance in Indonesia.

1.6.4 Practical Aspect

For practical contributions, the findings can provide more meaningful insights to investors who want to invest their funds in Indonesian Stock Exchange companies, Bappepam (Capital Market and Non-Bank Financial Sector Regulator) and consultants in designing rules for family and non-family controlled companies. The findings of this study contribute valuable potential sources for the public, investors and stakeholders, in general, which will help them to know and understand the characteristics of family-controlled and non-family controlled firms and the role of corporate governance mechanisms (board of directors' attributes, board of commissioners' attributes and audit committee characteristics) with respect to firm performance. Most Indonesian companies, including family-controlled companies, have been applying regulations as required by Bursa Efek Indonesia, which is the Indonesian Stock Exchange based in Jakarta and Bapepam, which is the Capital Market and Financial Supervisory Agency. However, family-controlled companies have the option to follow either the regulations imposed by Bapepam or use their

existing practices, as long as those family companies are not against regulations. In this context, this current study provides ideas about the function of the board structure for maximizing the performance and minimizing agency problems of Indonesian firms, especially in family-controlled companies.

1.7 Scope and Limitations of the Study

This study focuses on examining the relationship between family-controlled and non-family controlled firms with respect to the attributes of board of directors and board of commissioners and audit committee characteristics and performance of companies listed on the Indonesian Stock Exchange. This study uses a sample of companies registered with the IDX that have submitted their annual financial audit reports for five years from 2010 to 2014. This study uses secondary data available from the IDX database and Indonesia Capital Market Directory (ICMD).

1.8 Organization of the Study

This study comprises six chapters. Chapter One focuses on the introduction, justification for the study, research question and objectives, contributions of the study and scope of the study. Chapter Two highlights the review of prior literature and empirical findings on family business, board structure, audit committee characteristics, managerial ownership and firm performance. This is followed by Chapter Three, which contains the conceptual framework of the study and theoretical justifications for the hypotheses development. Chapter Four outlines the data collection, research design and instruments, measurement of variables and the techniques of data analysis. This is followed by Chapter Five, which highlights the results and discussions. Finally,

Chapter Six concludes and summarises the study, and the implications and limitations of the study are also provided in this chapter.

CHAPTER 2

LITERATURE REVIEW

2.1 Overview of the Chapter

This chapter comprises 10 main sections. Section 2.2 reviews the literature regarding the development of corporate governance in Indonesia. Section 2.3 explains the committees and laws on corporate governance. Next, Section 2.4 discusses one tier and two-tier board systems. Section 2.5 discusses the performance of family-controlled companies around the world. Section 2.6 explains family company performance in Indonesia. Section 2.7 reviews the performance of family-controlled and non-family controlled firms. Next, Section 2.8 presents the literature related to corporate governance mechanisms (attributes of the board of directors, attributes of the board of commissioners and audit committee characteristics). Section 2.9 discusses firm performance and Section 2.10 concludes the chapter.

2.2 Good Corporate Governance (GCG) in Indonesia

Good Corporate Governance (GCG) has become a hot issue whereby several researchers have begun to study it over the past few years in Indonesia (Darmadi, 2012; Singapurwoko, 2013; Itan, 2015). Issues related to GCG have also attracted the attention of economists and businessmen in many countries, especially in Indonesia (Darmadi, 2012). The financial crises in Asian countries in 1997, 2007 and 2008 were allegedly caused by weak corporate governance mechanisms. The reasons for the crises were relatively similar in most Asian countries, and some of the reasons include

links between business and government, monopoly and market intervention (Tjager, Nyoman, Alijoyo, Humphery, Djemat, & Sembodo, 2003).

The International Finance Corporation (IFC) determines corporate governance as "the guidelines, structures and processes for the direction and control of companies". The Organization for Economic Cooperation and Development (OECD), which in 1999 published its Principles of Corporate Governance, offers a more detailed definition of corporate governance as follows:

> *"The internal means by which corporations are operated and controlled […], which involve a set of relationships between a company's management, its board, its shareholders and other stakeholders. Corporate governance also provides the structure through which the objectives of the company are set, and the means of attaining those objectives and monitoring performance are determined. Good corporate governance should provide proper incentives for the board and management to pursue objectives that are in the interests of the company and shareholders and should facilitate effective monitoring, thereby encouraging firms to use resources more efficiently."*
>
> (OECD, 1999)

Based on the definition above, the mechanisms of corporate governance are considered to be both the internal and external controls of a company. The main aspects of the internal mechanisms are board structures, ownership structures and audit committee characteristics of the companies; while the main aspects of external mechanisms are markets and the legal system (Darmadi, 2013). In this context, the

implementation of GCG is to enhance the stability and increase the productivity of a company.

The financial crisis of 1997-1998 in Indonesia had a significantly dramatic impact on the economic, social and political fronts. The financial crisis significantly increased poverty and caused the Rupiah currency's deflation by almost 85%. In Indonesia, the recession was fuelled by several institutional weaknesses, which were either the inadequate or the lack of enforcement of the regulations by the Central Bank and extremely poor financial and irregular banking practices (Hartono & Herman, 2001).

Indonesia has undertaken many efforts to implement GCG from both the government as well as private sides. These efforts have included establishment of the adoption of new regulations, corporate governance institutions and revisions of existing regulations to support the process of standards and practices of corporate governance in the country. More specifically, the first Code of GCG in Indonesia was established in 2001 and was amended in 2006. Furthermore, in terms of improving corporate governance practices and standards, Indonesia has taken several steps by creating new laws and enhancing legislation.

The fundamental weaknesses of the economy in Indonesia are mainly due to poor financial performance, low competitiveness, absence of professionalism, non-response to changes in the business environment, economic mismanagement, less efficient business sectors and a fragile banking system. Therefore, GCG is needed by companies to control and maintain the management system based on the principles of the Code of Corporate Governance.

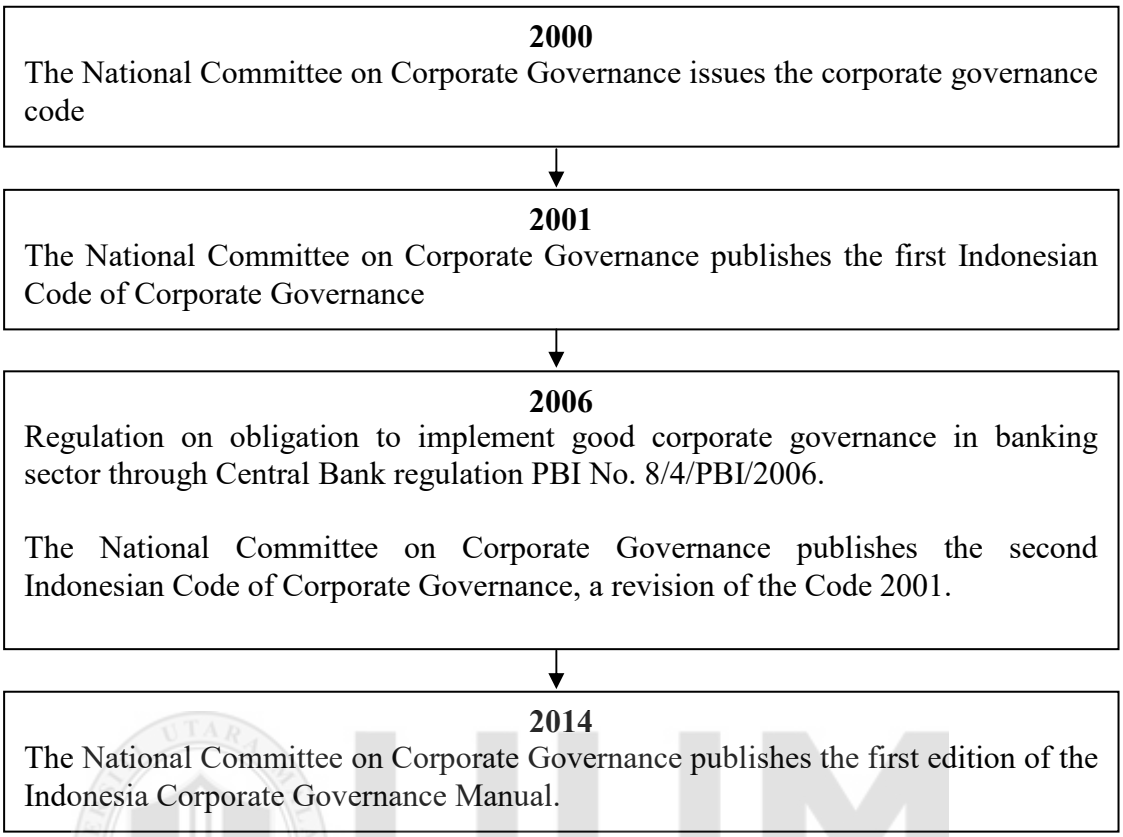

Figure 2.1. History of corporate governance in Indonesia.

The principles of GCG set out by the National Committee on Governance (NCG, 2006) are as follows:

1. Transparency

   Transparency means maintaining objectivity in running a business; a company should contribute material and provide relevant information related to the current condition of a company in a way that makes it easy to be understood and accessed by stakeholders. Enterprises must take the action to reveal not only problems as required by legislation, but also important decisions made by the internal party (shareholders and other stakeholders) and the external party (creditors and government).

2. Accountability

A firm must be transparent and accountable for its performance. Thus, a firm should be controlled properly, measured in accordance with the interests and objectives of the company, while considering the interests of principals and other stakeholders. Also, to achieve sustainable firm performance, accountability plays an important role.

3. Responsibility

Responsibility means the responsibility of those directors and managers for their actions and accountability on behalf of the company to shareholders. This principle is realized with the awareness that responsibility is a logical consequence of dealing with the stakeholders. There must be awareness of social responsibility to avoid abuses of power. Management must be professional, up-hold ethics and maintain a healthy business.

4. Independence

To ensure the principles of GCG, the firm should be controlled independently; one department msut not dominate the others and there must be no intervention by the others. Independence is necessary to avoid any potential conflicts of interest that may arise among the majority shareholders.

2. Fairness

A company should always consider and be concerned with the interests and objectives of principals and other stakeholders based on the principles of fairness and equality.

2.2.1 Characteristics of Good Corporate Governance in Indonesia

A country's culture and legal and regulatory framework influence a company's corporate governance framework. Indonesia's Corporate Manual of 2014 (http://www.ifc.org) mentions the following characteristics and features:

1. The role of state-owned enterprises (SOEs)

Over the last 20 years, several state-owned enterprises (SOEs) have been converted into partly privatized firms through strategic alliances, in which the state may still hold a majority interest. In spite of this, there are several important sectors in the Indonesian economy that remain either largely dominated by SOEs or are state monopolies, for example, railways and shipbuilding, mining, banking, electricity, post and telecommunications and oil and gas sectors. In numerous equitized SOEs, the state retains a majority interest of 51% and exercises its control via the general manager and the commissioners appointed by the state to the company's board of commissioners (IFC, 2014).

2. Concentrated ownership

Many firms in Indonesia were started as a local business owned either by a small group of shareholders, a single controlling shareholder or families. Although many companies have grown significantly, the monitoring principals have not changed. This concentrated managerial ownership often entails a lack of proper legislations (the documents or financial regulations), proper book-keeping and supervisory activities. These deficiencies impede the ability of outsiders to become shareholders and leaves room for abuse of minority shareholders. For example, weak protection of investors or external shareholders and insider dominance has resulted in failed deals and the under-development of the capital markets in Indonesia (IFC, 2014).

3. Little separation of ownership and control

Majority shareholders who control the management act as prime-director of the business and also sit on the board of directors. It is to find joint stock businesses in which the prime-director acts concurrently as the prime-commissioner. Failing to separate ownership and control can lead a company to ineffectiveness and fraud (IFC, 2014).

4. Unwidely holding structures

Normally, large business groups are in the form of parent companies with monitoring subsidiary companies. While holding structures can cross-shareholdings, serve legitimate purposes and lack of transparency have the tendency to create opaque ownership structures. This could make a company face difficulties in understanding the needs of investors and shareholders. The structures could be used to expropriate and circumvent the rights of individual shareholders. Poor consolidated accounting or even its absence thereof is a further corporate governance issue that has yet to be tackled (IFC, 2014).

5. Inexperienced and inadequate corporate bodies

Some aspects of Indonesia's current concept of board of directors and board of commissioners were first introduced under the International Constitutional Law (ICL) in 1995 and the regulation on SOEs in 2003. However, these concepts have not been applied seriously until recently, when firms began to draft and adhere to the Articles of Association (AoA) with firm rules and regulations. However, the boards of directors have commonly attempted to bypass supervision mechanisms put in place by the AoA, such as board of commissioners and internal auditors. The function of the board of commissioners, as well as its committees, the prime-director and the board of directors as a whole, as well as the corporate secretary, often remain unclear in the

daily company operations. The members of these boards must have experience, skills and knowledge. However, they lack awareness of their responsibilities due to a historical lack of general good practice in these areas. A lack of skills and knowledge in the field of corporate governance leads to lower economic development of the company.

2.2.2 The Legal and Regulatory Framework of Corporate Governance in Indonesia

The legal and regulatory corporate governance framework in Indonesia has some unique characteristics that are a product of the development of Indonesia's economy and history.

In 1968, the law for domestic investment was approved as the first comprehensive piece of legislation for local firms. Further, in 2007, significant changes were made to the structure, legal and regulatory corporate governance standards for firms and investment in Indonesia, whereby the government created a new law for investment.

The IFC, a member of the World Bank Group, commissioned the creation of the Indonesia Corporate Governance Manual (CG Manual) as part of the corporate governance program in Indonesia, which the IFC had begun implementing since 2012. In 2014, the IFC issued the first edition of the *Indonesia Corporate Governance Manual*, which was issued in conjunction with the *Otoritas Jasa Keuangan* (OJK), which is the Indonesian Financial Services Authority. The manual sought to help companies benchmark their current implementation of corporate governance with best standards and contribute to financial vunerability by identifying the weaknesses and

making improvements accordingly. The improvements may contribute to the shareholder rights, disclosure and transparency, the role of the board of directors and commissioners, material corporate transactions and internal control.

Where appropriate, this manual (IFC, 2014) refers to other legal documents and laws. The legislation in Indonesia has continued to change, develop and improve. For example, the ICL was revised several times to eliminate inconsistencies in provisions that regulate the activities of securities issuance, the exercise of shareholders, governing bodies and other matters. Most of the regulations and laws that have an effect on corporate governance and used in this manual (IFC, 2014) have been enacted over the last few years, although they may have evolved from past laws. Finally, all Indonesian companies are being encouraged to implement GCG in their companies, although these provisions are suggested more for publicly listed companies.

Foreign Investment Law on 1967 is the first regulation on foreign investment in Indonesia. After a series of amendments stretching from the late 1960s to the 1970s, the regulatory system was replaced in 2007 to cover all forms of foreign capital investments in Indonesia. This was done to modernize the system and because the old system was unsuitable to speed up the development of the national economy.

Over the past five years, Indonesia has improved corporate governance in Indonesia's document charter as well as legal and regulatory framework. However, the actual practices of and adherence to corporate governance standards by Indonesian companies remain in its infant stages. Indonesian firms are subject to competition,

auditing, anti-corruption, construction, other accounting standards, taxation laws, bankruptcy, labor and tender processes.

2.2.3 Code of Corporate Governance in Indonesia

Implementation of GCG uses two approaches: 1) ethics-based for businesses that are predominantly driven by consciousness to keep healthy longer term stakeholders and contribute profit in short-term orientation; and 2) regulatory-based that are usually driven by the initiative to design regulations for the enforcing company. Both these approaches have strengths and weaknesses; therefore, they are complimentary as each approach can create a great environment for business.

The ethics-based approach is used in Indonesia as presented in the voluntary Code (2006). The function of the Code is to provide references for businesses to implement GCG practices to maintain long-term company survival so that companies should know the steps to cross-check the process, increase transparency and accountability and consider corporate social responsibility. These are included in the provisions of GCG. The Code is seen as a living document that could be amended depending on current situations; thus, although the Code of GCG in Indonesia was published in 2001, it was amended in 2006 to include duties of the board of directors and provisions for stockholders to seek compensation for violations of their rights. GCG includes the larger society, business community and the role of each authority, which is described in the first part of the Code. It links the practices of GCG and related macro-perspectives by describing the role of each authority.

The Code is a comprehensive reference for those who want to implement GCG in their companies because this code provides guidance on macro-aspects, principles, functions and role of companies. In addition, the Code gives information on how to practice GCG.

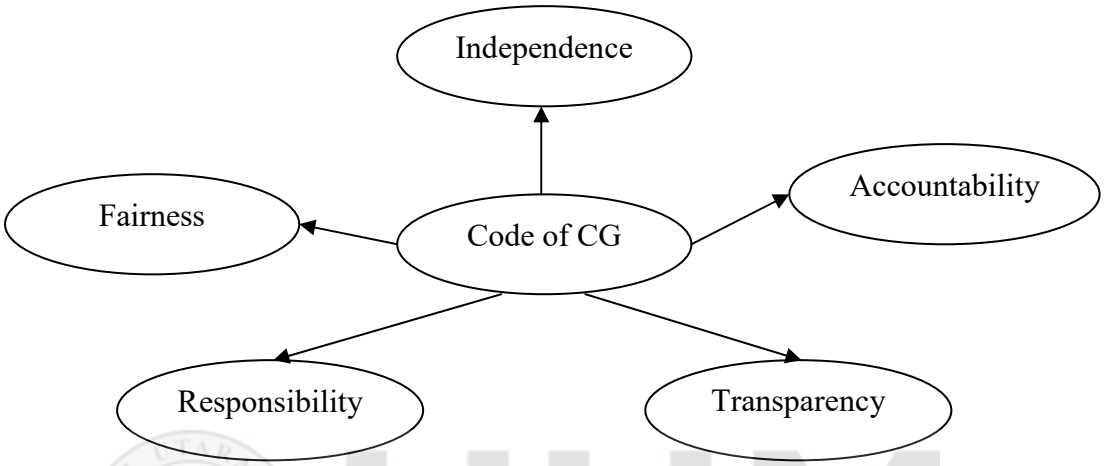

Figure 2.2. The principles of code of corporate governance

The Code of GCG in Indonesia contains accountability, principles of transparency, independence, responsibility and fairness. It provides standards to guide the companies to implement GCG and to achieve certain goals. They are designed to:

1. Maintain the company's sustainable growth;
2. Empower the function of each organization in the company;
3. Encourage the related parties to take any decision and action based on high moral values in compliance with laws and regulations;
4. Stimulate concern for corporate social responsibility;
5. Optimize the company's value; and
6. Maintain and enhance a company's competitiveness.

The Code of GCG is an important reference for all Indonesian companies, including companies operating based on Sharia Law. The Code of GCG is used as the minimum

standard of national corporate governance, and the Code can be adapted for companies that aim to implement GCG. Implementation of GCG in Indonesian companies is still weak. Therefore, the expectation is that SOEs, public listed companies, companies that raise and manage public funds, province and region-owned companies, firms whose products or services are widely used by the public and firms with extensive influence on the environment, will implement the Code of GCG. Further, to progress, it is expected that companies must use the Code of GCG.

2.3 The Committee and Law on Corporate Governance in Indonesia

The issue of corporate governance is growing in Asian economics, especially in Indonesia. Indonesia still lags behind in the implementation of corporate governance compared to other countries in Asia. Therefore, several committees have been established and legal provisions enacted that require Indonesian companies to implement the Code. These are as follows:

2.3.1 High Level Finance Committee on Corporate Governance

The National Committee on Governance (NCG) in Indonesia was founded on 30 November 2004. The function of the NCG is to act as an advisory department in formulating the guidelines of corporate governance and dispersing the principles of GCG by conducting studies and providing recommendations to enhance the awareness on legislation related to the issues with new regulations to encourage companies in Indonesia to be listed on the stock market (Kung, Carverhill, & McLeod, 2010).

2.3.2 The Capital Market and Non-Bank Financial Sector Regulator (Bapepam-LK)

Bapepam-LK is an organization established by the government of Indonesia to create capital market activity in an orderly, fair and efficient manner, and protect the interests of investors and the public (Bapepam-LK, 2014). Bapepam-LK (2014) also focuses on corporate governance practices by participating in several meetings to discuss the issue of corporate governance. For example, these include a conference conducted by OECD in March 2009. In September 2009, Bapepam-LK met with the Artic Response Company Group (ARCG) in Manila to discuss how to improve and enhance GCG in Asian countries.

Bapepam-LK (2014) supervises publicly listed companies in Indonesia to ensure that they comply with and follow company laws and regulations. Bapepam-LK (2014) can also impose sanctions on publicly listed companies that do not comply with and follow company laws and regulations. Thus, Bapepam-LK (2014) is important for improving and implementing GCG in Indonesia.

2.3.3 Company Law (40/2007)

One principle of corporate governance of the NCG (NCG, 2006) is transparency. Company Law 40 (2007) requires transparency for all statements disclosed in the audited financial reports of publicly listed companies (Kung et al., 2010). The articles under the Company Law explain the functions and duties of the company's governance bodies (board of director structures, board of commissioner structures, and general meeting of shareholders) and the prerequisites for issuing a good annual report. The articles require that the board of directors and board of commissioners must sign the financial report to endorse the report, make sure the contents are correct

and a public accountant audits the financial report. The Company Law contains regulations to promote GCG practices of accountability, transparency, fairness and responsibility.

In 2010, Bapepam-LK (2014) addressed the framework of corporate governance in the Report on Observance of Standards and Codes (ROSC). As a benchmark, it provides a helpful reference by using the OECD Principles of Corporate Governance. To sustain corporate governance standards and practices in Indonesia, the ROSC was continued in 2010. However, the implementation of GCG in Indonesian companies, in accordance with the OECD principles, is still far behind compared to other countries in Asia, even though corporate governance practices have become a critical need in the global economy. To enhance firm performance in non-family and family-controlled firms, Indonesia is adopting international standards that fit local characteristics of corporate governance mechanisms.

Regan (1998) claims that companies which apply good governance practices may boost the management's reputation and provide appropriate returns for shareholders. An efficient corporate governance standard is required for a company' success and overall market stability.

2.4 One-Tier and Two-Tier Board Systems

Traditionally, one and two-tier corporate governance systems have evolved from the corporate law of Anglo-Saxon countries (US, UK, Canada and Australia) and Mainland European countries (Germany and Netherland), respectively. Under the Anglo-Saxon model, a company is governed by one corporate body that undertakes

both the management and monitoring functions (one-tier board system). Further, under the Mainland European model, two separate bodies operate independently: the board of directors and the supervisory board (two-tier board system).

If a company adopts the one-tier board system, the company is governed by a unified board performing both management and supervisory functions; thus, there is no separate supervisory board. The majority of the board members will act as independent, although the deed of foundation may require a higher percentage. The main aim of such independence is that the unified board can carry out its supervisory functions objectively.

In a one-tier board, the executive directors and the supervisory directors are mutually established as the "Board of Directors". The supervisory directors are "non-executive directors" in a one-tier board. The different functions of the executive and non-executive directors of a one-tier board have to be described in the company's AoA. Non-executive directors perform a monitoring role, determine the remuneration of the executive members and one of them holds the position of chairman of the Board.

On the other hand, in a company under the two-tier board system, the board structure is separated into the board of directors and the board of commissioners (supervisory board). The duties of the board of directors are day-to-day management of the company, while the duties of the board of commissioners involve supervisory functions. The board of directors exercises its rights and performs its duties as an independent body. The deed of incorporation may provide that the board of directors is appointed directly by the shareholders' meeting. The board exercises its rights and

performs its tasks as a body in connection with all management issues of the company, whereas all board members may represent the company personally.

In general, Indonesian corporate law sets a list that falls within the exclusive competence of the supreme body of the company. The Companies Act further lists issues for which boards of public companies limited by shares are specifically responsible if the company's shares are listed on the Indonesian Stock Exchange. The board will prepare an annual governance report that must be approved by the general meeting of shareholders and published on the firm's website.

For the purpose of controlling the firm's management, the members of the firm are obliged to elect a supervisory board. The supervisory board also acts as an independent body and its members may not be instructed in this capacity by the employer or by the shareholders. Under Indonesian law, public companies limited by shares may operate a two-tier system.

Postma, Ees and Sterken (2001) analyzed board composition and firm performance of 91 Dutch listed firms in 1996. Since the Netherlands adopts the two-tier board systems, they found that the managing director does not determine performance, however; they claimed that supervisory board has a negative relationship with firm performance.

Rose (2007) examined 443 Denmark companies from 1998 to 2001. She claimed that two-tier board characteristics in Danish companies have a positively significant relationship with firm performance by using Tobin’s Q. The positive influence results

from a larger talent pool, which firms are able to use for recruiting qualified board members despite gender-specific criteria.

2.5 The Performance of Family-Controlled Companies Around the World

Family businesses have different styles, cultures, motivations, strategies and ownership structures as compared to non-family businesses (Daily & Dollinger, 1992; Bartholomeusz & Tanewski, 2006; Amran & Che-Ahmad, 2010; Ibrahim & Samad, 2011). Family businesses have a strong relationship with family traits, family ties and long-term intentions (Chrisman, Chua & Sharma, 2005; Hamid et al., 2014; Berg & Bart-Jan, 2014). Further, family businesses always adapt to the business environment compared to other types of companies (Chrisman, Chua, & Steier, 2005).

Family businesses dominate the economic landscape. According to the latest statistics from the Family Firm Institute, family firms account for two thirds of all businesses around the world, generate around 70-90 percent of annual global GDP, and create 50-80 percent of jobs in the majority of countries worldwide (Family Firm Institute, 2017). In the United States, one third of S&P 500 firms are controlled and managed by the founding family, family firms account for 89 percent of total tax returns, 64 percent of GDP, and employ 62 percent of the total workforce (Anderson & Reeb, 2003; Astrachan & Shanker, 2003).

Burkart, Panunzi, and Shleifer (2002) claimed that family members in the United Kingdom (UK) prefer to maintain their shares in the firm rather than sell to outsiders. This is because they believe that family members can give competitive advantage to the company. Wan-Hussin (2009) examined the relationship between board

composition and corporate transparency in Malaysian family firms on 2001 to 2002. He found that higher proportion of affiliated directors are more likely to make greater performance. A family-controlled company also have capabilities and competencies to adapt and survive in an evolving and dynamic environment (Chrisman et al., 2005).

Berg and Bart-Jan (2014) examine the relationship between top 100 family businesses with firm performance in the Netherlands which proxies of firm performance uses return on asset (ROA) and return on equity (ROE). They found that the family business is most concerned with internal shareholders as compared to external shareholders. They also revealed that when the world economy is growing, the growth of family business is lags behind. However, the family business can survive when the economy is not doing well. Finally, they found that family members have emotional links with their business. Therefore, family-controlled companies cherish their employees more as compared to non-family controlled companies. Overall, a commitment exists not only on the financial side, but also the social side of running the business.

Daily and Dollinger (1992) compared 186 companies performance between family-controlled companies and non-family controlled companies in Dubai. They revealed that family-controlled companies contribute to higher performance than non-family controlled companies. They also found that family-controlled companies have higher sales growth, better improvement in net profit and outperform their competitors compared to non-family controlled companies.

Bartholomeusz and Tanewski (2006) examined the performance between family-controlled companies and non-family controlled companies in 100 Australian firms by using a panel data for year 2002. Data collected were used to test hypotheses that: (1) corporate governance structures varied between two firm types, and (2) family firms utilize greatly different corporate governance structures and these differences lead to performance differentials. It was found that family control displaces other owners. Large blockholders are less likely to own capital of family firms, and board members are less likely to own shares. Family firms are less likely to be subject to disinterested or independent monitoring and are likely to have a lower proportion of disinterested or independent directors on their boards. However, Shleifer and Vishny (1997) argued that the performance of family-controlled companies is worse than that of their non-family controlled counterparts. The results reveal that older family members are no longer competent or qualified to run the companies.

Black, De Carvalho and Gorga (2012) examined the corporate governance in BRIK countries (Brazil, Russia, India and Korea) and found that the relationship between corporate governance and market value of a firm is strongly influenced by country characteristics. Similary, Aggarwal, Erel, Stulz, and Williamson (2010) find that foregin firms invest less in internal governance mechanisms relative to US firms. They found that negative relationship between government investment and firm performance (Tobins' Q) when compared to US firms.

Bhatt and Bhattacharya (2017) investigates the relationship between firm performance and board characteristics in top-listed Indian family-controlled firms and non-family controlled firms for the period 2002 to 2012. They examine the relationship between

board structure and firm performance by segregating the sample based on family management, family ownership and family representative directors. They found a negative effect of board structure on firm performance in family firms compared to non-family firms. Contrary to the most Western literature, family management was not found to significantly affect firm performance as compared to professionally managed firms. In the subset analysis of family firms, higher proportion of family ownership and family representative directors did not show any significant impact on the firm performance. Having a higher proportion of independent directors, larger board size or an independent chairman does not appear to improve this insignificant relationship between family firms and firm performance in India.

Yasser, Entebang and Mansor (2011) examine the relation between four corporate governance mechanisms (board size, board composition, CEO/ chairman duality and audit committee) with two measures of firm performance (ROE and profit margin) in the case of 30 listed Pakistani firms. Results found a significant relationship between performance and three of the corporate governance mechanisms (board size, board composition and audit committee).

Amran and Che-Ahmad (2010) examined the relationship between family-controlled and non-family controlled firms and firm performance by using 730 companies in Malaysia from 2003 through to 2007. They revealed a significant difference between family-controlled and non-family controlled firms on firm performance when using Tobin's Q, Operating Cash Flow and ROA as a proxy. The findings also show that family-controlled firms have better performance than non-family controlled firms. However, the family-controlled firms have fewer meetings compared to non-family

controlled firms because family businesses commonly conduct informal meetings. Family members easily meet and discuss during family gatherings without the need to conduct a formal meeting during working hours.

Ibrahim and Samad (2011) found mixed results on firm performance in Malaysian companies from the market and accounting-based approaches from 1999 through to 2005. They found that family-owned firms have lower firm value than non-family owned firms when measured by the market approach (Tobin's Q). However, family ownership has higher firm performance than non-family ownership based on ROE.

2.6 Family Companies' Performance in Indonesia

Companies in Indonesia are mostly characterized by family ownership in which the top management positions, whether it is the board of commissioners or the board of directors, are filled by family members. The separation of cash-flow and control rights occurs because of ownership concentration of public companies. This phenomenon is in place due to the shareholders being able to command the company either at once or indirectly. It is common that a number of companies in Indonesia are controlled by the same shareholders. This happens because some ownership mechanisms, especially pyramid ownership and cross ownership, are commonly found in developing nations, including Indonesia, and some developed countries through other companies (Savitri, 2018).

A family-concentrated company applies the best business strategy for the sake of the company's business development. The right strategy will lead to improvement and maximum results in the achievement of financial performance in the family company.

Therefore, business strategy cannot be separated from family companies since entrepreneurship will promote innovation and brilliant ideas for developing the family companies and surviving the competitions with other family companies or non-family companies (Yudha & Singappurwoko, 2017).

In Asia, several previous studies have claimed that family companies fuel economic growth (Filatotchev, Lien & Piesse, 2005; La Porta et al., 1999). Businessmen, like Li Jia Chen (Hong Kong), Jack Ma (China), Lim Kok Thay (Malaysia) and Kyuk Ho Shin (South Korea), are well-known among family group companies. In Indonesia, Abidin Yusuf (Satnusa Persada, Tbk) and Salim (Salim Group) are among the prominent family companies in the Indonesian market.

In Indonesia, 3% of family businesses established between years 1932 to 1943 and 2% established between years 1944 to 1955 are still in operation today. For family companies established from between 1956 to 1967; and 1968 to 1979, only about 24% are still operating today. About 37% of family businesses established from 1992 to 2003 are still in operation (Kodrat, Sukardi & Gunawan, 2007).

The shareholders in Indonesian listed companies comprise individuals or groups, the government, foreign companies or foreign individuals, financial companies, non-listed companies and other publicly listed companies. Prabowo and Simpson (2011) revealed that there is a positive relationship between ownership concentration and company performance. Therefore, the researcher defines the controlling shareholder as one owning at least 20% of common shares (Itan, 2015).

Achmad et al. (2009) examined the significance of family ownership structure on firm performance by using manufacturing companies listed on the Indonesian Stock Exchange from 2003 to 2006. They found that non-family controlled firms have better performance when measured by ROA than family-controlled firms. Prabowo and Simpson (2011) revealed that there is a relationship between board composition and board leadership and firm performance. They argued that family-controlled firms are negatively related to firm performance.

Darmadi (2012) examined the relationship between board size and commissioners' independence and company performance by using data of non-financial public family companies in Indonesia listed from 2005 to 2007. He argued that family-controlled companies are likely to mitigate agency problems by employing smaller boards. Itan (2015) examined company performance in Indonesia by using ROA and Tobin's Q. The findings reveal that non-family controlled companies have better performance than family-controlled companies in both approaches.

Harjito and Singapurwoko (2014) examined firm performance of family-controlled and non-family controlled Indonesian firms. They revealed that family-controlled companies have high firm performance and are more efficient than other companies with respect to insider ownership, debt policy and dividend policy. Further, the findings also explain that descendant-controlled companies have better performance than founder-controlled companies. Therefore, family relationship can improve and provide better firm performance, supporting the fact that founders and descendants bring about better firm performance compared to managers without founding-family ties.

2.7 Family and Non-family Controlled Firm Performance

Some research has shown that businesses controlled by non-family members show more positive results than businesses that are family-controlled when performance indicators are used to measure firm performance (Sindhuja, 2009; Ibrahim et al., 2009). However, other researchers have found that companies managed by families perform better than companies managed by non-families (Darmadi, 2013; Harjito & Singapurwoko, 2014; Anderson & Reeb, 2003; Maury, 2006; Amran & Che-Ahmad, 2010). Therefore, the findings on the firm performance of family and non-family controlled companies remain inconclusive.

Anderson and Reeb (2003) found that family-controlled companies have better performance than non-family controlled companies in terms of both market (Tobin's Q) and accounting approaches (ROA and ROE) by using panel study on S&P 500 companies. The findings show that family ownershop is present in one-third of the S&P 500 firms and accounts for 18% of the firm shares.

Sraer and Thesmar (2007) analyze the performance of French family-controlled companies over the period 1994 to 2000, finding that family-controlled companies outperform non-family controlled companies. Their results are in line with those of Anderson and Reeb (2003), who analyze the relationship between founding-family ownership and firm performance in the US market, concluding that family-controlled companies perform better than non-family ones. More precisely, they find that when family members serve as CEO, performance is better than with outside CEOs, suggesting that family ownership is an elective organizational structure. Scholes, Wilson, Wright and Noke (2012) investigate listed family-controlled companies in the

UK between 2007 and 2009, finding that family-controlled companies have superior profitability and considerably less debt than their counterparts, but have a lower growth rate. Allouche, Amann, Jaussaud and Kurashina (2008) find evidence of better performance among Japanese family-controlled companies. Other studies also find evidence of family-controlled companies have higher performance in advanced and competitive economies (Peng & Jiang, 2010; Essen, Carney, Gedajlovic & Heugens, 2011).

Maury (2006) used 1,672 non-financial companies in 13 Western European countries (Belgium, Finland, France, Ireland, Germany, Austria, Norway, Spain, Italy, Portugal, Switzerland, UK and Sweden) in 1998. He found that active family-controlled companies outperform in terms of profitability in different legal regimes and family-controlled companies have lower agency problems than non-family controlled companies, but conflict between the family director and minority shareholders exists.

Amran and Che-Ahmad (2010) conducted a study on the relationship between family and non-family controlled companies and firm performance by using 146 companies from 2003 to 2007. They found differences between family and non-family controlled firm performance when measured by Q, ROA and operating cash flow (OCF). They claimed that family-controlled companies have lower number of meetings because family companies usually conduct informal meetings, where they meet and discuss during family get together.

For non-family controlled companies, board structure, education and skills of directors, board meetings and audit committee are found to improve firm

performance. It is in line with the suggestion made by the Code (2006) that board structure should consist of board of directors and board of commissioners and companies should have at least one independent commissioner on the board. The directors sitting on the board should have skills, experience and credibility to manage the company and independent commissioners should bring in independent judgement. In terms of board meetings, the board should hold meetings once a month which is required by the Code (2006), and the number of board meetings held in a year and detailed attendance of each individual director must be disclosed. For audit committee, audit committee should control and monitor the actions of directors and provide the report to the board of commissioners. The Code (2006) requires that at least one audit committee member should be independent.

Ibrahim et al. (2009) conducted a study on 290 Main Board companies in Malaysia from 1999 to 2005. They found mixed results on firm performance, whereby indicators of performance used were Tobin's Q, ROE and ROA. They claimed that firm performance is lower in family-controlled companies compared to non-family controlled companies when measured using Tobin's Q. However, performance has higher value for family-controlled companies when measured by ROE. These findings indicate that from the market approach (Tobin's Q), firm performance reflects the current condition of the company as to whether or not the company is performing financially well. In contrast, when using the accounting approach (ROE), the data used was based on accrual basis.

Most companies in Indonesia are owned by families or individuals. The impact of global recession in 2007 and 2008 caused the value of the Rupiah to drop and the

power to sell and buy became unstable. Importers tried hard to increase their production cost while exporters tried to cut down production (Akhmadi, Yusrina, Asri, Yumma, Athia, & Rahmitha, 2011). Previous studies (Amran & Che-Ahmad, 2011; Darmadi, 2013; Berg & Bart-Jan, 2014; Itan, 2015) from different countries have revealed that companies owned by families have greater ability to be sustainable when facing a crisis and have better performance than companies that are non-family owned. However, a lack of scientific research in Indonesia exists that discusses and explains the impact between family-controlled and non-family controlled businesses and performance.

Vieira (2014) examines whether ownership of Portugal public firms is related to firm performance by comparing the family-controlled companies and non-family controlled companies for period between 1999 and 2010. She found that family-controlled companies outperform than non-family controlled companies. The firm performance of family-controlled companies is more sensitive to the crisis periods and ages compared to their counterparts.

De Massis, Frattini, Mahjocchi and Piscitello (2018) compare family and non-family firms and how institutional distance influences their international location choice. Specifically, they argue that family firms do not respond to institutional pressures in the same way as non-family firms. Through a quantitative analysis of top 100 Italian firms observed in the period 2000 to 2013, they show that firms are generally more likely to choose foreign locations with higher institutional quality, i.e., countries with clearer rules, more secure systems, and more transparent institutions. Moreover, compared to non-family firms, family firms are less reluctant to invest. In locations

with institutional voids, where family firms' social capital facilitates access to and screening of new business opportunities (Carney, 2005), family firms may exploit their relational capabilities those that enable them to better position themselves than non-family firms to benefit from the favors of politicians and other networks. Thus confirming the role of the external context in influencing family firms' internationalization decisions.

2.8 Corporate Governance Mechanisms

Corporate governance has two mechanisms, i.e., internal mechanisms (board structure and audit committee) and external mechanisms (capital market, legal systems and managerial labor market). Shleifer and Vishny (1977) declared that implementing GCG mechanisms in companies will assure the owners of returns in accordance with their investments. Itan (2015) conducted a study on the impact of quality of corporate governance on capital structure and firm performance, measured by Tobins' Q and ROA. Darmadi (2012) conducted a study on the effect of the mechanisms of corporate governance on share concentration and ownership and company performance measured by level of profitability for Indonesian listed firms.

This study focuses on the internal mechanisms, i.e., board of directors (board size, qualification, meetings, gender diversity, expertise and managerial ownership) and board of commissioners (size of board and independence) and audit committee characteristics (audit committee size, independence and meetings) that influence performance using Tobins' Q and ROE. The results show limited evidence that family-controlled firms are negatively related to board size but that family-controlled firms are likely to mitigate agency issues by employing smaller boards. Furthermore,

board independence demonstrates no significance in either mitigating or exacerbating agency issues.

Table 2.1 *Previous studies of family-controlled companies*

Author (Year)	**Primary Subject**	**Findings**
Anderson and Reeb (2003)	Family firm performance (agency theory)	1. Family firms are 1/3 of the S&P 500 and perform better than non-family firms in the sample. 2. Firms with family CEOs perform better that outside CEOs
Anderson and Reeb (2003)	Board Composition (agency theory)	1. The most valuable public family firms are ones that have independent directors balancing firm representation. 2. Agency II conflicts are mitigated when independent directors balance the power of family directors and management.
Chrisman, Chua, and Steier (2005)	Family firm introduction (stewardship theory)	1. One goal of the family entrepreneur is to build a business that is also a family institution.

Table 2.1 *Cont'd*

Author (Year)	Primary Subject	Findings
Chrisman, Chua, and Sharma (2005)	Agency vs. Stewardship	1. Study found support for the use of agency based compensation mechanisms to align the interests of family managers. 2. Altruism does not blind families from reality and kinship does not unconditionally guarantee appropriate behavior by relatives 3. Better firm performance is linked to the use of incentives and control mechanisms.
Corbetta and Salvatto (2004)	Agency vs. Stewardship	1. Stewardship theory adds to family business literature where agency theory cannot adequately explain inter/intrafirm behavior.
Miller and LeBreton-Miller (2006)	Ownership (agency theory)	1. Long-term orientations of family firms allow management to invest in actions that create a competitive advantage (such as trusting supplier relationships) by allowing the firm to focus on the development of its core competence
Miller, LeBreton-Miller, et al. (2005)	Ownership (agency theory)	1. Family firm research is sensitive to the definition of "family firm". 2. Only family firms managed by the lone founder (concentrated ownership) outperform the broader population.
Sharma (2005)	Divestment (M&A) (Resource-based view)	1. Divestment decisions are influenced by the breadth of family involvement and the collectivist nature of the family and community.

2.8.1 Attributes of Board of Directors

2.8.1.1 Board Size

According to Company Law (40/2007) on Limited Liability Company Article 1, the board of directors is an authorized corporate structure fully responsible and in charge of the management of the company, with the aim of achieving the goals and objectives of the company. Board size refers to the total number of directors who sit on the board and manage the interests of shareholders (Darmadi, 2013; Itan, 2015). Darmadi (2013) stated that board size is an important element to determine effective governance because directors are expected to be able to use their knowledge, experience and expertise.

Amran and Che-Ahmad (2011) found that Malaysian non-family controlled firms seem to have smaller boards to enhance firm value. In a similar study conducted, Hamid et al. (2014) found a strong relationship of small boards with performance for both family and non-family companies. Itan (2015) revealed that different institutional and legal environments could create problems for the board but the seriousness of these issues also depends on the effectiveness and specific functions of boards.

Board size has often been examined by experts (Yermack, 1996; Chen, Chen & Cheng, 2008; Itan, 2015), but mixed results have been found with respect to board size in family-controlled companies. Using S&P 1,500 enterprises in the period 1996-2000, Chen, Chen, and Cheng (2008) revealed that family-controlled firms have smaller boards and lesser independence than non-family controlled companies. Yermack (1996) examined the relationship between board size and firm performance.

He used 452 United States (US) industrial companies and found a clear inverse relationship between board size and market valuation of companies. Ferris, Jagannathan and Pritchard (2003) conducted a study by using firms on COMPUSTAT with at least US$100 million in total assets at the beginning of 1995. They stated that a small board has a strong and positive relationship with firm value. On the other hand, Itan (2015) argued that small number of board directors is more effective than large number board directors because a small board in a company contributes higher Tobins' Q than a large board.

Chen and Nowland (2010) conducted a study in Asia (Malaysia, Singapore, Hong Kong and Taiwan) and found that a larger board in family-controlled companies decreases performance because the monitoring of the board was still weak. A similar study conducted by Chen et al. (2008) found weak implementation of board governance practices in family-controlled companies due to small size of family directors.

Thus, mixed arguments and debates exist among experts about whether a large board is better than a small board and vice versa. Darmadi (2012) stated that large boards can provide more resources, have high problem-solving capabilities and provide advice and strategies to firms to increase their performance. Surifah (2013) stated that large firms prefer larger boards than small boards because they expect that large boards can be beneficial, in terms of solving problems, setting strategies and sharing ideas to enhance performance and achieving the company's goals. Zainal, Mustafa, and Jusoff (2009) conducted a study on Malaysian companies. They claimed that large boards contribute more to performance because larger boards have more skills,

knowledge and experience that members can share during shareholders' meetings. Badu and Appiah (2017) conducted a study by using 137 listed companies in Ghana and Nigeria. They found an optimal corporate board size effectively monitors and advises the management, thereby enhancing performance. Therefore, large boards appear to be more effective as compared to small boards.

Others have found contradictory results. For example, Itan (2015) studied family-controlled companies in Indonesia. He claimed that large boards do not enhance performance, and in fact, reduce value because large boards are inefficient when making decisions. Large boards have more ideas and give more advice, which makes it difficult for a manager to make the correct decisions. Sometimes, complications and conflicts occur. Hence, large boards inhibit the development of a company. Horvath and Spirollari (2012) conducted a study of US companies. They found that large boards face difficulty in communicating and coordinating among group members, thus creating conflict because of different opinions among directors. Large boards also do not help the top management to monitor the firm effectively (Jensen, 1993). On the other hand, Haniffa and Hudaib (2006) stated that small boards in Malaysian companies contribute more in terms of monitoring the company effectively because small boards can make decisions quickly. Therefore, small boards are expected to be better than large boards.

2.8.1.2 Board Qualification

The Code (2006) in Indonesia requires that board of directors should use their ability and qualities, such as education, skills, professionalism, knowledge, experience and integrity to carry out their job and duties.

A board acts as an internal corporate governance and control system in a business (Fama, 1980; Fama & Jensen, 1983). In terms of ensuring boards make correct decisions, each board member is expected to be equipped with management knowledge and skills to improve firm performance. Professional knowledge, such as knowledge of taxation, accounting and financing, marketing, information and development systems, legal issues and other related areas are needed to achieve better firm performance. The qualifications of board members are positively significant to management decisions, which can be translated into enhanced firm performance (Amran & Che-Ahmad, 2011). High educational background and skills are needed in a company to increase firm performance. Yasser (2011) claimed that education and skills can significantly impact family firm performance. A family member who has technical knowledge is in a better position to monitor the activities of management. Moreover, families have incentives to solve problems, prevent the occurrence of fraud and protect the shareholders' interests (Darmadi, 2012; Inmyxai & Takahashi, 2009; Yusuf, 1995).

Chen, Cheng and Hwang (2005) found that higher education of directors has a strong relationship with firm profitability in Taiwanese listed companies. Switzer and Huang (2007) examined Canadian companies. They found that performance of mutual funds has an impact on managerial human capital characteristics.

Sebora and Wakefield (1998) found that directors who have higher qualifications can manage a company effectively. Education is an important element for directors because it is an investment in knowledge that can increase productivity in a company (Schultz, 1993). Directors who are well educated can better understand financial

matters and be able to handle problems and control management in a company compared to less-educated directors (Amran & Che-Ahmad, 2011). However, Srivastava and Lee (2008) examined the relationship between top management characteristics (age, tenure, and education) and performance in companies in the US. They found that top management characteristics have a weak relationship with firm performance.

2.8.1.3 Board Meeting Frequency

Board meeting frequency refers to the number of board meetings in a year. The Decree on Managing Boards and Supervisory Capital Markets (Bapepam-LK, 2014) says that a company must conduct meetings at least once a month. The board of directors must disclose the frequency of meetings held in one year and details of attendance of each director individually.

The frequency of board meetings is an important attribute and measurement for boards to run their operations in a company. However, the finding on whether high board meeting frequency contributes to firm performance has shown inconsistent results in previous studies (Surifah, 2013). Therefore, if the board of director lack skills, knowledge and experience to manage or control a company, a higher frequency of board meetings can reduce the problems. Therefore, high frequency of board meetings may positively and significantly influence firm performance (Darmadi, 2013).

Based on the agency theory, Harjito and Singapurwoko (2014) suggested that board directors are contributors to managing agency problems. Moreover, the board of directors exercises governance at full board meetings when non-executive directors

formally participate in the corporate meetings. Therefore, non-executive directors contribute by attending board meetings and monitoring corporate decisions. Efforts of non-executive directors can increase board activity and contributions (Arosa, Itturalde, & Maseda, 2013).

2.8.1.4 Board Expertise

An expert is an individual who has good experience, skills, technical knowledge and ability in a particular area (Kusumastuti et al., 2012). Fairchild and Li (2005) argued that companies are looking for expert directors to monitor and control the management because expert directors have the skills, experience and able to handle the company effectively. Johannisson and Huse (2000) found that the background and experience of directors contribute positively to family firms. The behavioral skills of professionals combined with that of managers can be used to develop solutions for company performance problems (Greene, 2008).

Some studies have explained the relationship between board expertise and firm performance (Lawler, Mohrman & Susan, 2003; Amran & Che-Ahmad, 2011; Yasser, 2011; Hamid et al., 2014). A professional should have competent skills and knowledge and a professional is expected to be more effective as a strategic business partner (Lawler et al., 2003). These characteristics apply to specific business settings. Therefore, these professionals could indirectly contribute to firm value. Hamid et al. (2014) studied the impact of abilities and skills of the board directors on firm performance and how they provide advice and counsel to managers. Board experts can contribute ideas and strategies for the company to face competition and advice and monitor management activities effectively. Amran and Che-Ahmad (2011) found that board experts, such as lawyers, consultants and auditors, support directors in

terms of decision-making. Thus, board expertise has a strong relationship with firm value (Yasser, 2011).

McDonald, Westphal, and Graebner (2008) discussed how board expertise significantly influences firm performance by using large and medium sized US industries and services firms listed in the 1998 Forbes and Fortune 500 list. The knowledge and experience of outside directors can help a company to improve performance. Board directors who have experience in dealing with the same product markets can contribute to the value of the company. However, if the product markets are different, the knowledge and experience of outside directors may be needed to provide strategies and ideas to improve firm performance.

Amran and Che-Ahmad (2011) explained the relationship between board expertise and firm performance. During acquisitions, companies prefer independent directors with specific expertise rather than general expertise. For example, McDonald et al. (2008) found that chief operating officers (COOs), chief marketing officers (CMOs) and chief finance officers (CFOs) are experts in their knowledge areas and can contribute ideas and strategies based on that expertise. This study also found that outside directors can contribute to better firm performance.

Kusumastuti et al. (2012) stated that the expertise of directors in areas such as taxation, law, accounting, marketing, financing and consulting in Indonesian companies can support managers in their decision-making. Therefore, directors' expertise may have a positive influence on firm performance. Agrawal and Chadha (2005) found that directors with a certified public accountant (CPA), chartered

financial analyst (CFA) or similar professional qualifications on the audit committee can translate into fewer earnings restatements. However, in Indonesia, companies still do not focus on directors' expertise, especially in family-controlled firms. They prefer hiring family members over capable candidates from the outside.

Amran and Che-Ahmad (2011) studied the influence of board mechanisms on Malaysian family companies' performance by using a sample of 189 family companies from 2003 to 2007. They revealed that it negatively influences board expertise and performance. They explained that a fewer number of experts are more suitable for board effectiveness as compared to a high number of experts. The fewer number of experts result in better discussion and faster agreement and quicker decision-making among directors.

2.8.1.5 Females on the Board

Board diversity with respect to gender is an interesting component of the corporate governance mechanism in Indonesia because of the prevailing cultural assumption that men are more appropriate to manage a company. Statistical data of the Ministry of Manpower and Transmigration show that in 2014, the number of women in leadership positions was 37,801 (13%) of a total of 290,464 workers in leadership positions (Ministry of Manpower, 2014).

The small number of women in managerial positions may be due to different cultural views about the root causes of success that men and women achieve. A successful man is considered as high achiever in terms of talent or intelligence, whereas a woman's success is more often attributed to luck (Darmadi, 2013). In addition, in the

event of failure, some studies have suggested that failure of women is caused by incompetence, whereas failure among men is due to bad luck (Crawford, 2006).

Females on the board factor has been examined by several previous studies with mixed findings. A female director is a component of board diversity (Majdalani et al., 2014). Female directors can benefit the company in three ways: 1) female board members are more experienced in terms of market knowledge compared to male board members. As such, this experience will help the directors to make right decisions; 2) female board members can bring out a better image and perception when communicating with customers, which in turn, can enhance firm performance; and 3) female board members can explain the business environment well enough to be accepted or understood by other board members. This current study expects that female board members can have a positive influence on firm performance.

Female directors can bring benefits and strengthen a company. In Spain, a higher number of female directors in the top management can help a company gain benefits from outside stakeholders, such as the government, community, institutional shareholders and society (Sanchez & Silaghi, 2017). Female directors can gain support and commitment of customers and employees in a company. Majdalani et al. (2014) stated that female directors in Arab Saudia can present a better image to employees and promise career development opportunities to female managers.

To exercise their monitoring and advisory roles efficiently, boards require a variety of skills, information, experience and capabilities (Adams & Kirchmair, 2016). It has been suggested that women represent a source of valuable human capital with value-

creation potential and that there are two main advantages of having women on the board (Adams & Ferreira, 2009). First, women are not part of the "old boys" network, which increase their level of independence. Second, regardless of age and education, women may bring to the board a new managerial practice that can prove themselves efficient in complementing existing ones, thus leading to improvements in the boards' functioning (Gomez, Lafuente & Vaillant, 2018). Thus, the positive relationship between gender diversity in boards and performance is indicative of the quality of the business' governance system, and of how organizations capitalize on the human capital of their board members (men and women). It has been argued that excessive diversity may cause communication and coordination costs within the board (Hillman et al., 2007); however, this concern is unlikely to be empirically relevant for most boards because the number of boards dominated by women is small.

In Indonesia, the overall female population was about 49.6% in 2014, and the number of female directors in Indonesian companies was about 5.0% on all boards in 2014 and about 11.6% on IDX listed firms. Although more males serve on boards than females, a prevailing belief is that female directors can provide different opinions to enhance firm performance (Guy, Niethammer, & Moline, 2011).

Female directors provide different perspectives in terms of knowledge, skills, counselling and advice. In a meeting, different views, attitudes, beliefs and opinions are expressed by female and male directors (Majdalani et al., 2014) that impact a firm's decision-making. Hambrick and D'Aveni (1992), Hambrick, Cho, and Chen (1996) and Darmadi (2013) explained that different views and opinions sometimes may cause internal conflicts among the members, reduce efficiency in decision-

making and lower firm performance. However, Amason (1996) suggested that such functional conflicts can increase the creativity of directors and produce a wider range of perspectives to help in decision-making, thus contributing to firm performance.

In family-controlled companies, a traditional perception exists that successors of the company should be the eldest son of the owners (Holliday & Letherby, 1993). Kets de Vries (1993) stated that a daughter is unwelcome in some family companies because indirectly, the son-in-law must have a chance to be involved in that company. The founder of the family company is concerned with family name. A married daughter will follow her husband's surname, and this impact on the symbolic identity of the company. Nonetheless, companies in African-American countries choose a daughter as successor because they expect that a female can manage the company well and receive benefits from outside stakeholders (Hillman, Canella & Harris, 2002).

Amran and Che-Ahmad (2011) found that male directors can out-perform female directors and could face competition better. However, Shaw, Marlow, Lam, and Carter (2009) claimed that female business owners undercapitalize their companies, typically investing only one-third of the capital that men do, causing a decrease in firm performance.

2.8.1.6 Managerial Ownership

High ownership concentration may give rise to agency problems between shareholders and managers (Jensen & Meckling, 1976), but managerial ownership has been seen as a way to curb agency conflicts. Managerial ownership aligns the interests of managers with those of outside shareholders (alignment effect); therefore,

managers will try their best to achieve the goals of their companies and pursue value-maximizing behavior (Jensen & Meckling, 1976). However, Demsetz (1983) argued that high ownership by managers would lead those managers to be concerned with their own personal interests rather than the interests of outside shareholders. Therefore, the value of the company will decrease (entrenchment effects).

Demsetz and Lehn (1985) conducted a study on US companies. They found a linear relationship between managerial ownership structures and firm performance. Jensen and Meckling (1976) suggested the alignment-of-interest hypothesis. To minimize agency costs, this hypothesis posits that management ownership increases while the operational performance and firm value increases as well. Jensen and Meckling (1976) explained that when managerial ownership is higher, a greater alignment of interests will occur for outside shareholders and managers. Holderness, Kroszner, and Sheehan (1999) found a positively significant relationship between managerial ownership and firm value when ownership is below 5%.

In contrast, Mandaci and Gumus (2010) conducted a study in Turkish companies. They found a negative relationship between managerial ownership and firm performance measured by Tobins' Q. Their results support Demsetz (1983) who found that higher managerial ownership in a company would lead the managers to be more concerned with their own interests rather than those of outside shareholders, thereby decreasing firm value. Fahlenbrach and Stulz (2010) measured managerial ownership and firm performance using Tobins' Q in companies in the US from 1988 to 2003. They found that managerial ownership has a negative relationship with firm performance. Managers are more likely to decrease their ownership when the firm's

performance is good and more likely to increase their ownership when the finances of the company are constrained. However, Mat Nor and Sulong (2007) found that the managers who own a small portion of shares in a company will be concerned with their own best interests rather than in trying to maximize benefits for the company in Malaysia. To solve these problems, they suggested increasing the shares held by managers that can then reduce agency costs.

Fauzi and Locke (2012) explained that one reason for successful implementation of corporate governance is the managerial ownership structure of the companies in New Zealand. Managerial ownership structure is reflected through either stocks or debt instruments so that these structures can be explored for possible forms of agency issues that might happen.

Fleming, Heaney, and McCosker (2005) examined the alignment and entrenchment hypotheses between managerial ownership and firm performance with Tobin's Q as a proxy for profitability in Australia companies. They found low levels of managerial ownership for the alignment hypotheses. However, there were high levels of managerial ownership for entrenchment of interest. Morck, Stangeland, and Yeung (2000) found that share ownerships in the range from 0 to 5% and above 25% are associated with the alignment hypothesis effects. On the other hand, share ownership in the range of 5% to 25% ownership is associated with the entrenchment hypothesis.

Siregar and Sidharta (2008) explained that managers' who control and monitor a firm's equity, try to secure the most favorable employment conditions. Accordingly, the directors who monitor the company's assets can potentially expropriate outside

investors by committing funds to non-beneficial projects that provide personal benefits to these directors (Ibrahim et al., 2009). Demtsetz and Villalonga (2001) argued that no relationship exists between managerial ownership and firm performance when using Tobins' Q as a measurement for firm performance.

Itan (2015) examined the relationship between quality of corporate governance and firm performance in family-controlled firms in Indonesia. He used 126 family companies in Indonesia as sample size from 2009 to 2013. He found a negative relationship between managerial ownership and firm performance when using Tobins' Q as a proxy for profitability. A high proportion of managerial ownership leads managers to focus on personal interests. However, a positive relationship was found when ROA was used as a proxy for profitability. The finding explains that the higher the managerial ownership in non-family controlled companies, the better the decisions made, thus enhancing firm performance (Siregar, 2008; Sanjaya, 2011).

2.8.2 Attributes of the Board of Commissioners

2.8.2.1 Size of the Board of Commissioners

The Code in Indonesia requires that the number of board commissioners should be tailored to manage effectively the company in terms of decision-making (NCG, 2006; IFC, 2014). The composition of the board of commissioners should adhere to the following: 1) at least one member is an independent commissioner domiciled in Indonesia; 2) the number of board commissioners should be at least three, which is the same as the board of directors; and 3) independent board commissioners must be at least 30% of the number of commissioners (IFC, 2014).

The board of commissioners is one of the control mechanisms in a company (Darmadi, 2012; Singapurwoko, 2013). The board of commissioners is the main internal mechanism to carry out the functions of the company and control opportunistic behavior of management. In addition, the commissioners can bridge the interests between the principals and managers in the company (Sembiring, 2005).

Several studies (Darmadi, 2012; Saragih et al., 2012; Harjito & Singapurowoko, 2014; Itan, 2015) have debated the impact on the size of the board of commissioners and firm performance and found mixed results. Saragih et al. (2012) and Darmadi (2012) claimed that a larger number of commissioners may influence the relationship because commissioners can effectively monitor the manager's actions, hence enhancing firm performance. However, Harjito and Singapurowoko (2014) and Itan (2015) found inconsistent results and argued that a negative relationship exists between the size of the board of commissioners and firm performance. They argued that a larger number of board commissioners decrease the effectiveness of the company because a large number would make it difficult to carry out the board's duties and included reasons such as difficulty in communication and coordination among commissioners.

In contrast, Darmadi (2012) argued that the effectiveness of a company depends on the size of the board of commissioners. He found that more commissioners could provide useful information, new ideas, counselling and strategic options in order to increase firm value compared to a smaller board of commissioners.

2.8.2.2 Independence of Board of Commissioners (Unaffiliated Directors)

Bapepam-LK (2014) (Indonesian Capital Market Supervisory Agency) through SE03/PM/2000 and the Indonesian Stock Exchange No.339/BEJ/07-2001, require a minimum one member of the board of commissioners to be an independent member. The Limited Liability Company Law (40/2007) states that independent board commissioners (unaffiliated directors) are outsiders who are not affiliated with both the boards of directors and commissioners. More specifically, the independent board commissioners (unaffiliated directors) must fulfil the following criteria: 1) they do not have any positon as a director in any other company; 2) they are not affiliated with the directors and commissioners; 3) they do not have any shares or ownership in the company either directly or indirectly; and 4) they are outsiders of the public company.

Indonesia has adopted a two-tier board system that separates the board structure into a board of directors and a board of commissioners. Board directors are directors who manage the daily operations of the business; while the main duty of commissioners is to act as a supervisory board that supervises and controls the actions of directors and sets policies. The independence of the board of commissioners (*dewan komisaris*) in Indonesia is stipulated in the Code of Corporate Governance where a minimum 30% of the total board commissioners must be independent. Ramdani and Van (2009) argued that board independence can assist the boards in taking care of stakeholders' interests and the number of independent board commissioners is related to firm performance. Based on the agency theory, more independent commissioners may enhance firm performance.

According to the Code of Corporate Governance Indonesia (amended 2006), a minimum 30% of the total number of board commissioners must comprise independent commissioners. This requirement provides for a statutory balance of authority between inside and outside directors. Non-executive directors are more independent, objective and capable of resisting personal interests when making board decisions (Surifah, 2013). Sujoko and Soebiantoro (2007) argued that companies need commissioners who are more accountable to shareholders and not just independent of management.

In contrast, Saragih et al. (2012) claimed that a large number of independent board commissioners could stifle strategic actions, leading to over-controlling and monitoring and creating a lack of independence of management. Itan (2015) found that high proportion of independent board commissioners in Indonesian family companies is negatively related to firm performance. The reason behind that is because a manager who stays for a long time in a company can build a close and friendly relationship with the independent commissioners. Therefore, it becomes difficult to make independent judgements on decisions taken.

2.8.3 Audit Committee Characteristics

2.8.3.1 Audit Committee Size

The IDX and Bapepam-LK, 2014, through Kep-339/BEJ/07-2001, stipulate that it is compulsory for publicly listed companies in Indonesia to have an audit committee, within the framework of the implementation of GCG. The function of the audit committee is to provide an independent opinion based on the members' professional judgement and report to the board of commissioners related matters to solve problems and to achieve high firm performance. Investors, as outside parties, cannot observe

directly the quality of a firm's information systems; hence, the perception of the performance of the audit committee will affect investors' assessments of the firm's performance.

The Code in Indonesia requires that a company should have a minimum of three audit committee members, comprising at least one independent commissioner and two members from outside. The firm should establish an audit committee no later than six months after listing on the IDX. Any public listed company that has not appointed an audit committee must declare it in a written statement (NCG, 2006).

The main function of an audit committee is to monitor the financial performance and financial reporting in Indonesia (Alijoyo, Antonious, Bouma, & Sutawinangun, 2004). In this sense, it is expected that the audit committee can monitor the quality of the financial report, assist the external audit and internal control systems (including internal audit), independence, remuneration, scope of audit work and the resolution of disputes between external auditors and top management. Further, the audit committee reviews and agrees upon the chosen accounting policies. The audit committee must persuade the company to disclose all issues on financial reporting and ensure the correct accounting standards are adopted. Also, besides controlling the reliability of the company's accounting processes, the audit committee ensures cooperation with the legal department, including attempts to prevent fraud in the company (Turley & Zaman, 2007).

An audit committee with few members could mean a lack of diversity of skills and knowledge, which may render it ineffective (Owen-Jackson, Robinson, & Shelton,

2009). Raghunandan and Rama (2007), Sharma, Naiker, and Lee (2009) and Rainsbury, Bradbury and Cahan (2009) stated that the quality of the audit committee affects the quality of corporate financial reporting. In addition, they stated that an internal control system is very important to ensure the integrity of the company. The main activities of directors are monitoring and being responsible for the internal control of the company, but these tasks have been delegated to the audit committee. Therefore, the task of the audit committee is to provide accurate and quality financial statements with full disclosure to the shareholders (Sharma et al., 2009; DeZoort, Hermanson & Houston, 2013).

Ishak, Haron, Salleh, and Rashid (2011) and Al-Matari et al. (2014) stated that there is a positively significant relationship between the quality of external audit and the audit committee on the disclosure of financial statements. Yang and Krishnan (2005) and Hamid et al. (2014) also claimed that an audit committee can improve an organization's internal control. Through this, a conclusion can be drawn that the control of management and monitoring by an audit committee can improve firm performance.

Zhou, Owusu-Ansah and Maggina (2018) examine whether the characteristics of boards of directors and audit committees and the formation of the committees are associated with firm performance. Agency theory suggests that well-governed firms perform relatively better than their poorly-governed counterparts. However, resource dependency theory suggests that a board with more insider directors could have more expertise on how to better operate the firm, thus contributing to better firm performance. They use a sample of firms publicly traded on the Athens Stock

Exchange during 2008 to 2012 and found that large-sized boards performed better, but firms having more independent board members performed poorly.

2.8.3.2 Audit Committee Independence

An audit committee comprising independent directors is seen as being better able to assess the quality of corporate practices and financial reports and the ratio of independent commissioners on the committee can measure overall audit committee independence (Kang & Kim, 2011). Such independence is viewed as important. For example, Swamy (2011) found that audit committee independence guarantees that corporate governance practices are being adhered to. Abdullah, Shah, and Hassan (2008) stated that the audit committee's independence plays an important role in minimizing financial fraud. They found that a lack of independent members on an audit committee and the presence of inside directors can lead to a higher incidence of financial fraud. Therefore, an audit committee with more independent members is viewed as being more independent compared to an audit committee having a higher number of inside directors (Hamid et al., 2014).

Independence is an important element of the audit committee. However, studies on audit committee independence have produced contradictory results. Al-Matari et al. (2014) argued that no relationship exists between the independence of audit committee board members and firm performance. Conversely, Klein (2002) claimed that the outside directors on the audit committee can enhance firm performance and bring about high shareholder returns. Chan and Li (2008) found that the presence of independent audit committee and expert members can increase firm performance.

Many researchers have examined audit committee independence and firm performance. Owen-Jakson et al. (2009) found that audit committee independence and audit committee meetings have a negative relationship with financial fraud. Abbott, Parker and Peters (2004) stated that audit committee independence is negatively associated with misstatements. Furthermore, they found that audit committee size and audit committee expertise have a significant and negative relationship with firm performance.

2.8.3.3 Frequency of Audit Committee Meetings

The audit committee oversees and monitors the financial reporting process, internal control of the company and external audit. The audit committee is the liaison between management and the external auditor (Beasley, Carcello, Hermanson, & Lapides, 2000). The existence of an audit committee is a characteristic of GCG as stipulated in the Decree of the Board of Business and the Securities and Exchange Commission (Bapepam-LK, 2014) through Kep-29/PM/2004. In carrying out its functions, duties and responsibilities, an audit committee holds meetings periodically as determined by the audit committee itself. In these meetings, the audit committee may review financial reporting accuracy and/or discuss significant issues.

Several scholars have studied frequency of meetings and firm performance. Al-Matari et al. (2014) indicated that a greater frequency of meetings can decrease incidences of financial reporting issues and improve the quality of external audit. Therefore, it is important for audit committees to meet frequently to do their job well. Raghunandan and Rama (2007) argued that a high frequency of audit committee meetings would be more effective and can enhance firm performance (Abbott et al., 2004). A larger audit committee will be inefficient if they do not know the problems and job description of

each member of the board; therefore, such an audit committee should have frequent meetings (Beasley et al., 2000; Aldamen, Duncan, Kelly, McNamara, & Nagel, 2012). Sharma, Naiker, and Lee (2009) found a negative relationship between audit committee meetings and multiple directors and audit committee independence. On the other hand, they found a positive relationship between high risk of misreporting in financial reports and audit committee size, managerial and institutional ownership, board independence and board expertise. The existing regulations do not mention explicitly the number of audit committee meetings that should be held in a year. Hence, no relevant guidelines exist for the number of meetings that should be held.

Previous studies have tested factors related to the frequency of audit committee meetings (Mendez & Garcia, 2007). Raghunandan and Rama (2007) and Sharma et al. (2009) provided evidence that firm size, number of audit committee members, stakeholder percentage, board size, expertise or accounting and finance committee competencies have a relationship with frequency of audit committee meetings.

To the researcher's knowledge, studies in Indonesia related to determinants of the frequency of audit committee meetings are limited. The absence of definitive guidelines and a lack of research evidence related to determinants of the frequency of audit committee meetings have motivated this study to examine the determinants of the frequency of audit committee meetings of companies listed on the Indonesia Stock Exchange.

2.9 Firm Performance

The implementation of GCG is expected to enhance firm performance. Thus, corporate governance is an important determinant of a firm's performance (Harjito & Singapurwoko, 2014; Itan, 2015). Companies should continuously evaluate their performance to determine whether or not they have achieved the best interests of stakeholders and the goals of the company.

A better governance structure can impact firm performance in several ways. Firstly, with good corporate governance structure in place, the expropriation of company resources by management is less likely to take place. Therefore, with improved governance, efficient utilization of company resources can result in higher operating income and firm performance. Secondly, investors will be more confident to invest in companies with a good corporate structure and will be more inclined to pay a premium for companies with a high governance standard (Arifai et al., 2018).

This current study uses two approaches that are usually used to determine firm performance: market and accounting-based approaches. The market approach proxies are Tobin's Q and ROE. The accounting approach uses ROE as a proxy to determine firm performance.

Itan (2015) explained the difference between accounting approach and market approach as proxies for firm performance. First, the accounting approach is backward-looking and market approach is forward-looking. Second, the accounting approach deals with the behavior of accountants in setting up accounting standards based on their profession while the market approach deals with community of investors constrained by their optimism and pessimism.

The firm performance indicators in this study are Tobin's Q and ROE. Based on suggestions in previous research, multiple measures can give a more accurate description of firm performance (Rechner & Dalton, 1991). Cochran and Wood (1984) claimed that although there is no consensus as to what constitutes proper measurement of financial performance, such measures fall into two broad categories namely, accounting returns and investor returns.

2.9.1 Market Approach

2.9.1.1 Tobin's Q (Q)

Tobin's Q is one of the proxies for profitability that is often used as a firm performance measurement in studying corporate governance (Amran & Che-Ahmad, 2010; Yasser, 2011; Itan, 2015). Tobin's Q is an indicator of firm performance because investors usually use it to measure firm performance. Tobin's Q is measured by market equity value and debt divided by total assets. In Indonesia, the market equity value is the value of share price at the fiscal year end.

2.9.2 Accounting Approach

2.9.2.1 Return on Equity (ROE)

Amran and Che-Ahmad (2011) stated that ROE is a metric used by several researchers as a proxy for firm performance. ROE is defined as net income divided by shareholders' equity (Yasser, 2011; Amran & Che-Ahmad, 2011; Miller & Breton-Miller, 2006).

2.10 Conclusion

This chapter reviews literature on mechanisms of corporate governance, namely, the attributes of the board of directors, the attributes of the board of commissioners, audit committee characteristics and the performance of family and non-family controlled firms. In addition, this chapter considers whether corporate governance positively influences firm performance. The development of hypotheses related to factors discussed that affect corporate governance mechanisms is discussed in the next chapter.

CHAPTER 3

THEORETICAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

3.1 Chapter Overview

This chapter explains the theoretical framework and hypotheses development based on the related theories and empirical evidence discussed in Chapter 2. This study proposes three equations as follows: Equation 1 examines the effect of corporate governance mechanisms (attributes of board of directors, attributes of board of commissioners and audit committee characteristics) on firm performance by using a sample of family-controlled firms listed on the Indonesia Stock Exchange (excluding banks). Equation 2 focuses on the effect of mechanisms of corporate governance (attributes of the board of directors, attributes of the board of commissioners and audit committee characteristics) on firm performance by using a sample of non-family controlled businesses on the Indonesian Stock Exchange (excluding banks). Twelve hypotheses are developed for this study, with one attribute being examined under one hypothesis.

This chapter is organized into six sections. Section 3.2 discusses the theories underlying corporate governance. Section 3.3 presents the theoretical framework of this study. Next, section 3.4 explains the theoretical perspectives and empirical evidence for hypothesis H_1: testing the relationship between family and non-family controlled companies on the Indonesian Stock Exchange and firm performance. Section 3.5 explains the corporate governance mechanism attributes that are presented

in Section 3.5.1 and which discuss hypotheses H_2, H_3, H_4, H_5, H_6 and H_7, focusing on board size, board qualifications, frequency of board meetings, board expertise, board diversity and managerial ownership that are grouped under the attributes of the board of directors. Section 3.5.2 discusses hypotheses H_8 and H_9, that are related to size of the board of commissioners and independence (unaffiliated directors) grouped under the attributes of the board of commissioners. Next, Section 3.5.3 focuses on audit committee characteristics and hypotheses H_{10}, H_{11} and H_{12} related to audit committee size, audit committee independence and the frequency of audit committee meetings. Section 3.6 concludes the chapter.

3.2 Theories Underlying Corporate Governance

Top managers of a public listed company are usually not the owners of the company. In fact, most top managers have only a small portion of the shares in the companies that they manage. The real owners (principals) elect a board of directors who hire a manager as their agent to run the daily operations of the company. Once directors are employed, questions such as, can this director be trusted and are they putting themselves or the company first, often arise (Donaldson & Davis, 1994). Several theories have been developed to answer these questions. For this study agency theory and stewardship theory will be utilised.

3.2.1 Agency Theory

Most of the corporate governance research is based on the agency theory. Corporate governance focuses on the separation of control and ownership that leads to the principal-agent problem, due to dispersed ownership in the modern company (Berle & Means, 1932). Darmadi (2013) and Itan (2015) looked at corporate governance as a

mechanism, in which the board, as a group of important people in the company, can minimize the problems caused by the relationship between agents and principals. In this context, the agent is a manager while the directors and commissioners serve as part of the monitoring mechanism (Harjito & Singapurwoko, 2014).

Majority shareholders are a group of people or an individual that hold the majority of shares of a firm, while minority shareholders are those persons holding a very few shares of the firm. The majority shareholders are having higher voting power and can take any decision in favour of their benefits, which hampers the interests of the minority shareholders (Fama & Jensen, 1983). This kind of agency problem prevails in a country or company, where the ownership is concentrated in the hands of few persons or with the family owners, then the minority shareholders find it is difficult to protect their interests or wealth (Demsetz & Lehn, 1985).

Hamid et al. (2014) stated agency problems arise due to conflicts between the desires of the owner of the company (majority shareholder) and the minority shareholders. Therefore, the structure of ownership is regarded as crucial in addressing the agency problem. A good ownership structure will reflect good firm performance because the managers are competent and have sufficient authority to carry out their duties (Harjito & Singapurwoko, 2014).

Previous studies (Siregar, 2008; Siregar & Sidharta, 2008; Sanjaya, 2011) have found that managerial ownership of companies on the Indonesian Stock Exchange is concentrated ownership. According to Siregar (2008), 99% of firms listed on the Indonesian Stock Exchange have a concentrated ownership structure. Meanwhile,

continental data of Asia as a whole shows 93% of public companies in the continent are concentrated and owned by the controlling shareholders (Claessens et al., 2000). The findings are consistent with Siregar and Sidharta (2008) and Sanjaya (2011), who claimed that general companies listed on the Indonesian Stock Exchange are mostly concentrated ownerships. Shleifer and Vishny (1997), La Porta et al., (1999) and Claessens et al. (2000) also found that the concentration of control rights among controlling shareholders may lead to the expropriation of minority shareholders. The adverse effect of control rights on firm performance is in line with the argument that major shareholders will be able to manage the company to obtain a private benefit. Therefore, when control is exerted by the major controlling shareholder, the controlling shareholder will seek to allocate the company's resources to generate the private benefits. Controlling shareholders could use the implementation of policies and incentives to obtain private benefits over the minority shareholders. Therefore, the presence of agency theory Type II takes place in this situation.

3.2.2 Stewardship Theory

The stewardship theory presents that the manager is considered as a good steward, whereby he or she will work in the best interests of the owner (Donaldson & Davis, 1994). Further, the stewardship theory is based on social psychology that focuses on the behaviour of directors. The behavior of a steward is pro-organization and he/she acts in a collectivistic manner with high utility for the company. Managers acting as stewards will not seek their personal interests because they prefer to achieve organizational goals (Davis, Schoorman, & Donaldson, 1997). The non-financial factor is the motivation of the managers, and managers use their authority to achieve higher profit and benefits for the firm.

The stewardship theory posits a strong significant relationship between the manager and the objectives of the company; thus, the manager will protect and maximize the wealth of shareholders through the company's performance. From the perspective of the stewardship theory, the roles of Chairman and CEO are separated (Clarke, 2004).

The stewardship theory assumes that stewards behave as trustworthy and focus on the collective good of the constituents in the firm regardless of the manager's self-interests (Davis et al., 1997; Donaldson & Davis, 1994). The possibility of moral hazard is minimized because the steward decides to work on behalf of the owners; thus, the risk differential between owner and manager that drives the hidden actions of managers in the principal-agent model is minimised by the steward-manager. The steward-manager believes ownership will be equitably shared the residual claims from the firm; thus, maximization of those claims for the owner maximizes the share of the steward-manager. In other words, there is no misalignment between the interests of managers and owners because the stewards are believe to pursuit of what is best for the organization is what is best for their constituents and themselves (Davis et al., 1997).

Therefore, for this study, agency and stewardship theories are two fundamental theories in answering the research questions. It is expected that the independent variables (board of director attributes, board of commissioner attributes and audit committee characteristics) influence firm performance. It is claimed that when managerial ownership is high and concentrated, the higher benefits and costs are borne by the same owner (Demsetz & Lehn, 1985). Further, family-controlled companies usually invest most of their private wealth in the company, which is not well-diversified. Thus, families are more concerned with the firm's survival because the risks are not fully diversified and have a strong incentive to monitor management closely. Monitoring tends to be lower in companies

controlled by family than non-family controlled companies (Fleming et al., 2005). The controlling shareholders will serve the interests of minority shareholders as well as their own interest (Schulze et al., 2001).

3.3 Theoretical Framework

The theoretical framework discusses corporate governance internal mechanisms (attributes of the board of directors, attributes of the board of commissioners and audit committee characteristics) for family-controlled firms and non-family controlled firms in relationship to firm performance as suggested in this study.

3.3.1 Proposed Theoretical Framework

Many previous researchers have examined and explained the relationship between mechanisms of corporate governance in family and non-family controlled firms and firm performance globally. However, some studies in the context of Indonesia lack focus, especially for corporate governance practices in family and non-family controlled firms, which may enhance firm performance. This study's model is developed from the core research question, i.e., how do corporate governance mechanisms (attributes of the board of directors, attributes of the board of commissioners and audit committee characteristics) in family and non-family controlled companies on the Indonesian Stock Exchange affect firm performance?

Family-controlled companies are likely to be more concerned with their continuance as a going concern because family companies invest most of their private wealth in their company, which is not well-diversified. Therefore, family companies have a strong incentive to monitor the daily operations of the company. Further, monitoring

costs tend to be lower if a company is controlled by the family compared to non-family controlled companies (Fleming et al., 2005). The controlling shareholders will be concerned with the interests of minority shareholders as with their own interests (Schulze, Lubatkin, Dino, & Buchholtz, 2001), and exploitative behavior of agents towards the principals (Jensen & Meckling, 1976). As a steward, the family-controlled companies are more concerned with the interests of the company and stakeholders rather than with their personal interests. Therefore, stewards will protect and maximize shareholders' interests by increasing firm performance (Eddleston & Kellermans, 2007).

The model is presented in Figure 3.1. The model presents a hypothesized linkage between attributes of the board of directors, attributes of the board of commissioners, audit committee characteristics of family and non-family controlled firms and performance.

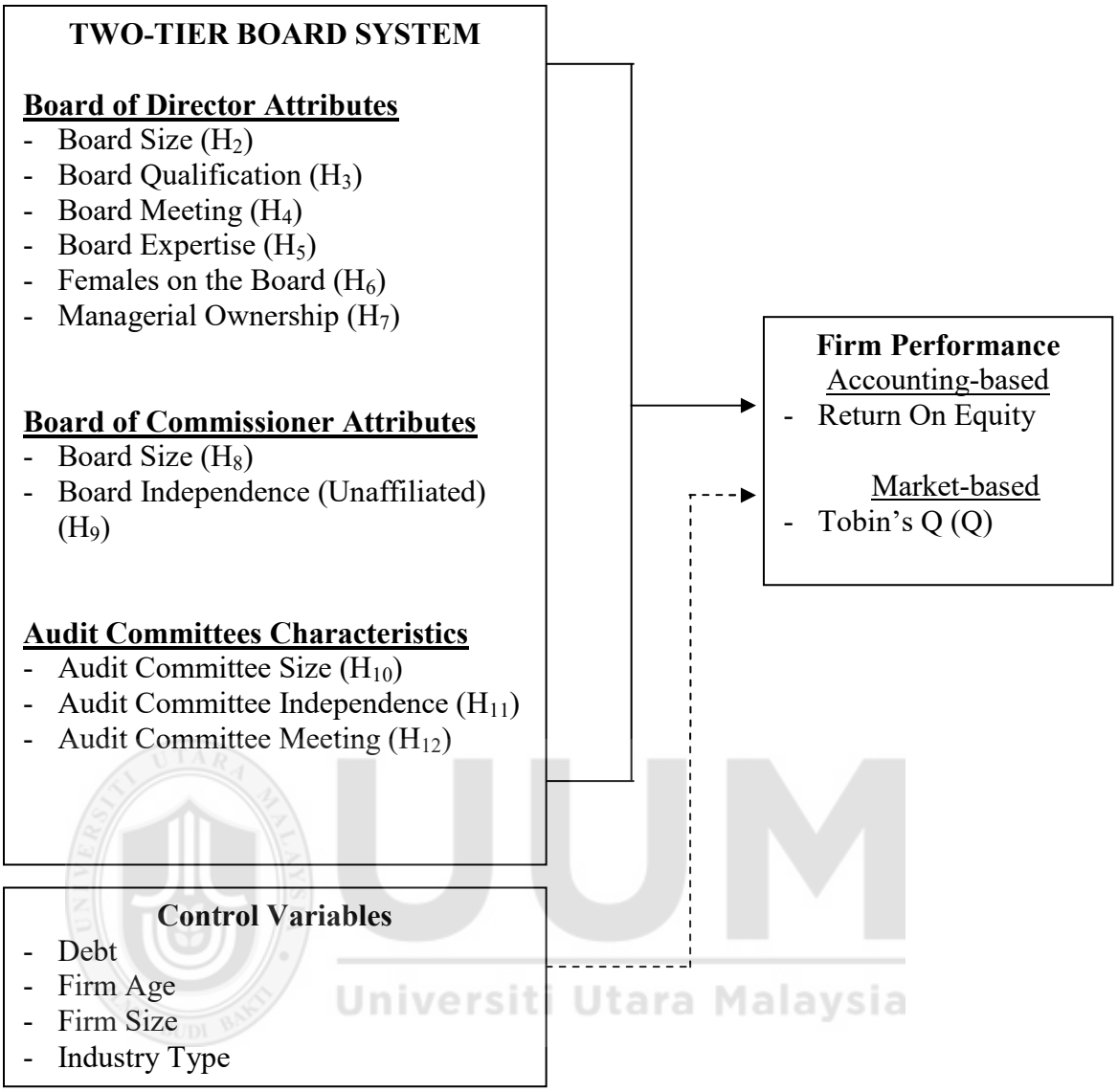

Figure 3.1. Theoretical framework for two-tier board system and audit committee characteristics and firm performance

The theoretical framework in this study is based on the agency theory and stewardship theory. Previous studies (Darmadi, 2012; Yopie & Itan, 2016) have attempted to validate either the agency or the stewardship theory as "one of the best ways" to corporate governance, which assumes that all managers are either agents or stewards, respectively. This approach has produced mixed findings. Therefore, this study utilizes both theories (agency theory and stewardship theory) when studying corporate governance mechanisms.

Shleifer and Vishny (1997) argue that legal protection and concentrated ownerships are important ways of mitigating agency problems. One of the proposed methods of controlling agency problems is to link managerial compensation to the performance of company, which would give incentives for managers to maximize shareholder value (Holmstrom, 1979; Murphy, 1999). However, compensation alone cannot achieve good corporate governance (Frydman & Saks, 2010). In addition, Bebchuk and Fried (2004) argue that compensation is related to managers' ability to extract rent. Other research focuses on role of governance structure in the reduction of agency problems. These studies attempt to provide empirical evidence regarding the effectiveness of governance structures by measuring the effect of these governance structures on firm performance.

On the other hand, Jensen and Meckling (1976), the progenitors of the agency theory, the issue of Type II agency problem occurs between majority shareholders and minority shareholders (Ratnawati & Hamid, 2015). The effect of control rights on firm performance is in line with the argument that majority shareholders will be able to manage the company to obtain private benefits. Therefore, when control is exerted by the majority shareholders, the controlling shareholders will seek to allocate the company's resources to generate private benefits (Ratnawati, Hamid & Popoola, 2016).

Darmadi (2012) claimed that executive directors have higher value for boards because they provide the skills, experience, expertise and knowledge in a company and they are better in evaluating the directors due to their familiarity with fair decisions. Previous researchers, such as Harjito and Singapurwoko (2014), have suggested that

the agency theory is an individualistic utility motivation resulting in divergent of interests between majority shareholders and minority shareholders (Type II). Thus, additional theories are needed to explain the relationship between the interests of majority and minority shareholders as viewed from non-economic assumptions (Doucouliagos, 1994).

The stewardship theory provides another model of management, where the agent or manager is expected to be a good manager who will try his/her best to achieve the interests of shareholders and the goals of the company. The stewardship theory focuses on the behavior of the directors. The characteristics of stewardship behaviour include pro-organization, collectivism and a high usability for the company (Jaskiewicz & Klein, 2007; Harjito & Singapurwoko, 2014). The stewardship theory looks at the strong relationship between the manager and the success of the company, wherein the manager will protect and maximize the wealth of shareholders through the company's performance.

Therefore, for the purposes of this study, both the agency theory and stewardship theory are used in terms of answering the research questions. This study expects that the independent variables (family-controlled companies), attributes of the board of directors (board size, board qualification, board meeting, board expertise, female on board, managerial ownership), attributes of the board of commissioners (board commissioner size, independent of board commissioner) and audit committee characteristics (audit committee size, audit committee independence and audit committee meeting frequency) influence firm performance (measured by Tobin's Q and ROE).

3.4 Family and Non-family Firm Performance

There are several definitions for a family business in studies (La Porta et al., 1999; Itan, 2015). This current study uses a family director or a group of member families which have minimum ownership of 20% in the Indonesian setting. Moreover, based on Indonesian Capital Market Law, Article (1) 1995, a family director who holds at least 20% shareholding of a company is a substantial shareholder. La Porta et al. (1999) found that a shareholder holding a minimum of 20% shares can control a company effectively.

From the agency theory perspective, family-controlled firms have incentives to minimize agency costs because the owners have high concentrated ownership (Yopie & Itan, 2016). As family-controlled firms have concentrated shareholdings, they have substantial reasons to increase firm value and minimize agency conflicts (Martinez, Stohr, & Quiroga, 2007; Harjito & Singapurwoko, 2014). In family companies, the family invests the family's wealth into the company; therefore, families have a strong incentive to control the daily operations and manager's activities to minimize the agency costs. However, the problem between the owners and managers is difficult to avoid in the family-controlled firms. Villalonga and Amit (2006) found that the agency costs in family-controlled companies can arise between major family owners and minority owners.

The stewardship theory focuses on the behavior of the directors. Darmadi (2012) claimed that the managers are trustworthy individuals to manage the company in terms of achieving the company's goals. Because the family directors spend their working lives in the company that they manage, they are expected to understand the

condition of company better than non-family directors; thus, they can make superior and right decisions.

The stewardship theory considers a strong relationship between the agent and company's goals; in this view, a manager will protect shareholders' interests and maximize the wealth of these shareholders by enhancing firm performance (Clarke, 2004). It has been proposed that a sense of psychology in family ownership can motivate and enhance firm performance (Amran & Che-Ahmad, 2011). The stewardship theory has been practiced successfully in family companies (Corbetta & Salvato, 2004).

Hence, based on the arguments of the agency and stewardship theories, this study expects family-controlled companies to have higher performance than non-family controlled companies. Family control is believed to lead a family- controlled company to outperform a non-family controlled company because of its uniqueness and the family company spirit. This spirit make companies achieve a competitive advantage and have a higher sense of belonging that make owners become more concerned with the survival of the company. Hence, they will control their companies effectively (Berg & Bart-Jan, 2014). The presence of the family spirit to outperform will make performance of family-controlled firms better than non-family controlled firms. This family spirit and effective control are reflected in the company's strategy and can generate higher profitability (Thomsen & Pedersen, 2000; Sujoko & Soebiantoro, 2007).

In addition, family-controlled companies are motivated to achieve long-term company viability by making long-term investments with the expectations of returns over time (Ismail & Mahfodz, 2009). In turn, this perspective and the long-term investments improve the reputation of the company and make investors feel safe and confident to invest. Therefore, it is hypothesized that:

H_1: Family-controlled companies have better firm performance than non-family controlled companies.

3.5 Corporate Governance Mechanism Attributes

The structure of the board of directors is an important factor in enhancing firm performance in Indonesia. An effective board will be able to enhance firm performance. This study examines the attributes and characteristics of the two-tier board system, namely, the board of directors (board size, board qualification, board meetings, board expertise, board diversity and managerial ownership), board of commissioners (board size and board independence) and audit committee characteristics (audit committee size, audit committee independence and audit committee meetings) as the hypotheses variables.

3.5.1 Attributes of the Board of Directors

3.5.1.1 Board Size

Several previous studies (Jensen, 1993; Yermack, 1996; Daily et al., 1999; Haniffa & Hudaib, 2006; Darmadi, 2013) have examined the role of board size, but have opposing conclusions. Jensen (1993), Haniffa, and Hudaib (2006) and Yermack (1996) stated that to ensure board effectiveness, board size should not be large, while

some feel that a smaller board can better enhance firm performance. The agency theory argues that smaller boards can reduce agency costs in a company. For example, Borokhovich, Brunarski, Donahue, and Harman (2006) found that a small number of directors is more effective than a large number of directors in terms of decisions made. Haniffa and Hudaib (2006) argued that a small board makes it easier to monitor each member and make decisions quickly.

However, various studies (Pfeffer, 1972; Goodstein, Gautam & Boeker, 1994; Haleblian & Finkelstein, 1993; Haniffa & Cooke, 2002; Klein, 2002; Adam & Mehran, 2003; Anderson, Ronald, & Thomas, 2000; Coles, Daniel & Naveen, 2008) have argued that a greater number of directors contributes to increased firm performance. Haleblian and Finkelstein (1993) found that a large board contributes more advantages in terms of problem-solving capabilities, i.e., by being able to gather more information that can provide potential solutions and critical opinions to correct any errors. Haniffa and Cooke (2002) claimed that a bigger board can help a company to provide diverse resources to enhance firm performance. Thus, larger boards are seen as providing effective oversight of management and different views to increase firm performance. Moreover, larger boards can be beneficial in terms of greater expertise and networking among directors (Goodstein et al., 1994).

For family-controlled companies, a mixed argument exists about board size in terms of increasing firm performance. Several researchers (Pfeffer, 1972; Pearce & Zahra, 1992; Klein, 2002; Adam & Mehran, 2003; Anderson et al., 2003; Coles et al., 2008) have explained that large boards can provide useful information and advice to management for monitoring the operations of the company well. Klein (2002) stated

that a company needs guidance and advice for the CEO to manage the company's operations. Also, a larger board of directors can help a company to understand the firm's environment (Pfeffer, 1972; Pearce & Zahra, 1992). Family businesses need a large board to better manage the firm and achieve good performance.

In contrast, Chen et al. (2008) claimed that family-controlled companies prefer smaller boards. Mishra and Ratti (2011) found that a large number of directors in family-controlled companies are not as efficient as small number of directors. Mak and Yuanto (2004) evidenced that a smaller board shows a higher Tobins' Q value, meaning small boards can enhance firm performance in the case of Singaporean and Malaysian companies. Amran and Che-Ahmad (2010) found that non-family controlled firms with a smaller board size have better performance than companies with a larger board size.

Based on the stewardship theory, the directors in family-controlled firms normally are family members. When board of directors reinforce in family-controlled companies, the family can rely on the board for guidance, conflict management and decision-making (Yopie & Itan, 2016). This can alleviate the stress that is often placed on the individuals to overseeing a family-owned business. The board of directors task to resolve various issues and providing guidance, with the ultimate success of the business as a top priority. Family members can rely on the board to make unbiased business decisions that may otherwise be impossible to reach. Therefore, the argument is made that small family boards prevent conflicts in decision-making (Itan, 2015). Jensen (1993) argued that a small board makes communicating and decision-making easier and helps prevent conflicts between shareholders and management

(Lipton & Lorsch, 1992) compared to a large board. O'Reilly, Caldwell, and Barnett (1989) explained that a large board will reduce effectiveness of interpersonal communication and thus cause problems and conflicts between management and shareholders. Itan (2015) argued that a small board in a company can increase firm performance better than larger boards. Therefore, based on the discussion above, this study hypothesizes that:

H_{2a}: There is a negative relationship between board size and firm performance for family-controlled companies.

For non-family controlled firms in Indonesia, based on the agency theory perspective on board size, this study expects that non-family controlled companies with large boards can contribute to firm performance. Large boards can help to monitor the operations of the company and reduce conflicting shareholders' interests (Singh & Harianto, 1989). Hermalin and Weishbach (2003) argued that members of the board have incentives to remain independent and that the directors are part of the market solution to the contracting problems within most organizations. Baidu and Appiah (2017) found that a large board can help the company to reduce agency problems and monitor management. Others have posited that a large board can provide a diversity of views and opinions based on the directors' own backgrounds. Thus, different directors can contribute and provide different opinions and advice to enhance operations of the company. Further, it will be easy for large boards in a company to set up committees to delegate duties. Therefore, this study hypothesizes that:

H_{2b}: There is a positive relationship between board size and firm performance for non-family controlled companies.

3.5.1.2 Board Qualifications

A board acts as an internal corporate governance and control system in a business (Fama, 1980; Fama & Jensen, 1983). The Code (2006) in Indonesia recommends that members of the board of directors should utilize their abilities and qualities, such as education, knowledge, skills, professionalism, experience and integrity to carry out their job and duties. Knowledge of taxation, finance and accounting, marketing, information and development systems, legal issues and other related areas are needed to make effective decisions to achieve better firm performance. The qualifications of board members will positively and significantly influence management decisions that will then impact on firm performance (Nicholson & Kiel, 2004; Fairchild & Li, 2005; Adams & Ferreira, 2007).

Phan (2016) examines the relationship between board of director's education and firm performance on a European dataset over the period from 1999 to 2013, employing a well-developed dynamic panel generalized method of moment estimator to alleviate endogeneity issue in corporate governance study. He found that no significant relationship between board education and firm performance when return on asset as a measurement.

Several studies (Inmyxai & Takahashi, 2009; Yusuf, 1995) have explained that level of education is representative of the knowledge and skills of directors. A high level of education of board directors can increase firm performance. A CEO who has professional skills and high education can provide creative solutions and guidance for the company to solve complex problems (Bantel & Jackson, 1989). Yasser (2011) examined the influence of the qualification of directors on firm performance. He

proved that directors with higher education contribute to firm value. Therefore, firms with a majority of highly qualified board members can increase firm performance (Hamid et al., 2014).

Based on the stewardship theory perspective, family directors are expected to be equipped with management knowledge and skills for improving firm performance. Family directors are expected to understand financial problems more than the outside educated directors. Further, Sebora and Wakefield (1998) argued that family directors are expected to have critical thinking in terms of solving problems and situations that arise in companies.

In family-controlled companies, education and skills of family directors may not really influence firm performance. A family director who has technical knowledge can contribute to the monitoring of a firm more efficiently and effectively by using his/her abilities and experience which cannot be found in formal education. Amran and Che-Ahmad (2011) examined the relationship of the educational levels of board members with Tobin's Q, ROA, ROE, earnings per share (EPS) and OCF as proxies of firm performance. They found that there is no relationship between board members' education and firm performance measured with Tobin's Q and OCF. However, a positive relationship exists with firm performance for ROA, ROE and EPS.

This study expects that lower educated directors in family-controlled companies may increase firm performance. In family-controlled companies, the directos who sitting in the board is family member and have crucial influence with business, thus, educated

director may not be needed in family companies. Based on stewardship theory perspective, Indonesian family-controlled firms may have concerned with higher cost when to hire educated director and families need to borne the costs by themselves. Furthermore, family companies put more weight on business succession. Therefore, a good education is not crucial for family directors to maintain the company. Hence, it is hypothesized that:

H_{3a}: There is a negative relationship between the educational qualifications of board members and firm performance for family-controlled companies.

For non-family controlled companies, the background of directors helps influence their knowledge. If board members have appropriate skills, knowledge and experience, they will have the ability to better manage the business and make business decisions. Specifically, having knowledge in business and economics is beneficial. Ultimately this will affect the value of the company. Santrock (1995) stated that the knowledge of board members supports them in reaching a higher career path.

Nurudin (2004) mentioned that a study by Harvard University in the US reveals that success is not solely defined by experience and technical skills (hard skills), but by soft skills as well. The results reveal that success is only determined by approximately 18% of hard skills and the remaining 82% is with soft skills. Hard skills are skills that can produce something visible and immediate. Unlike hard skills, soft skills are invisible and not immediate.

Based on agency theory perspective, the minority shareholder tends to prefer hiring educated director to manage and run the business. They belived that education is an

investment in knowledge that increases firm productivity (Schultz, 1971). Further, Schultz (1993) pointed out that the evolution of knowledge contributed decisively in the growth rates of organizations. Therefore, from the literature discussed above, board qualification is an important attribute that influences firm performance. Without knowledgeable human resources, firms cannot survive, Hence, it is hypothesized that:

H_{3b}: There is a positive relationship between the educational qualifications of board directors and firm performance for non-family controlled companies.

3.5.1.3 Frequency of Board Meetings

Lawler, Finegold, Benson, and Conger (2002) found that effective meeting of directors have a positive impact on company performance. For example, Conger, Finegold, and Lawler (1998) stated that frequency of board meetings is an important factor in improving the effectiveness of a board. Many researchers have conducted studies on the frequency of meetings and believe that regular board meetings can improve effectiveness of boards (Letendre, 2004). Zahra and Pearce (1989) explained that regular board meetings can contribute to successful board performance. That is because through regular board meetings, directors can perform their duties of protecting shareholders' interests (Lipton & Lorsch, 1992; Byrne, 1996).

Empirical evidence has found positive results that support board of director activity and firm performance (Brick & Chidambaran, 2010; García-Ramos & García-Olalla 2011; Vafeas 1999). Brick and Chidambaran (2010) suggest that the implementation of good corporate governance codes increases the pressure on firms, which is reflected where board of director have more meetings. The study of Vafeas (1999) found that board of directors that meet frequently were less valued by the stock

market. However, this association disappeared due to the improvement in firm performance after years of board of director increased their meetings (Gomez, Lagos & Betancourt, 2017).

These improvements are more pronounced for firms with previous low firm performance and firms are not dedicated to execute corporate control of their operations. Jackling and Johl (2009) did not find any relation between the number of board of director meetings and firm performance in Indian firms. The insignificance of this finding may suggest that the relation between the number of meetings and performance can be more complex than a linear relation or the possibility that the increase of board of director meeting comes as a reaction to poor firm performance, which in turn affects economic performance in the following years (Vafeas, 1999). According to the recommendations of corporate governance codes and from the perspective of the stewardship theory, board of directors are groups of competent people that help managers to improve their decision processes, through their experiences, competences and different approaches that contribute to the debate in board of director meetings (Minichilli et al., 2009). Therefore, there are reasons to believe that board of meetings may be an important resource, and the frequency of board of director meetings can influence firm performance. On the contrary, a high frequency of board of director meetings could also be the result of board of director poor performance, being detrimental to firm economic results (Gomez et al., 2017). Based on discussion above, it is hypothesized that:

H_{4a}: There is a negative relationship between the frequency of board meetings and firm performance for family-controlled companies.

The Indonesia Corporate Governance Code requires the board of directors to meet regularly, and board meetings are a mechanism to allow directors to set business strategies and monitor management effectively. Lawler et al. (2002) stated that a company that regularly holds board meetings can reduce internal conflicts among directors. Additionally, Carcello and Neal (2002) stated high frequency of board meetings will influence the quality of audit work, which in turn, can improve firm performance and protect shareholders' interests. Vafeas (2005) stated that the frequency of board meetings is a valid measurement of the intensity of board activity and the relationship between the frequency of board meetings and firm performance.

In non-family controlled companies, the corporate governance perspective posits that the frequency of board meetings is an attribute that can be used to measure the effectiveness of a board in a company (Vafeas, 1999). Every board member should attend meetings regularly to monitor management and discuss, set strategies, solve problems and share ideas and views to improve profits (Byrne, 1996). Regular board meetings can protect the shareholders' interests and enhance performance. Horvath and Spirollari (2012) claimed that a significant relationship exists between the frequency of board meetings and firm performance. They found that low frequency of board meetings is related to low price-to-book value, which is caused by a weakness in communication among the board of directors. Therefore, it is hypothesized that:

H_{4b}: There is a positive relationship between the frequency of board meetings and firm performance for non-family controlled companies.

3.5.1.4 Board Expertise

A company needs experts and qualified board members for decision-making. An expert is important for a company to monitor the management because experts have

experience and skills to solve complex problems (Yasser, 2011). Experts on the board are expected to use their ability to set strategies to improve firm performance. Ingley and Van Der Walt (2001) stated that expert and skilful directors may provide a strategic link to different external resources. The higher experience and skills of board members would ensure an effective board, which requires, "high levels of intellectual ability, experience, soundness of judgement and integrity" (Hilmer, 1998, p. 62). The revised Code of Corporate Governance (2006) in Indonesia also suggests that appointments to the board should consider relevant skills, knowledge, expertise, experience and professionalism when appointing directors.

An expert is an individual who sits as a director, with great experience, skills, technical knowledge and ability in a particular area. Fairchild and Li (2005) argued that companies are looking for expert directors to monitor and control the management because expert directors have the necessary skills, experience and qualifications to handle the company effectively. Hillman et al. (2000) stated that experts in specific areas, such as in taxation, costing, financing, consulting, accounting and law, can support directors in decisions made. Therefore, board expertise may positively influence firm performance. Agrawal and Chadha (2005) found that directors having a CPA, CFA or similar professional qualification can prevent any earnings restatements.

In line with the stewardship theory, stewards are seen to be important for increasing firm performance because the experts cum managers act as stewards that strive for the benefit of the company. An expert professional director may be highly effective in counselling role due to his/her industry contacts, skills, specialized knowledge and

experiences. Board expertise is an important board attribute that can help companies to achieve success. In Indonesian Codes, expert directors are needed to manage company operations and give advice on firm performance.

Johannisson and Huse (2000) stated that expert directors have a positive relationship with family firm performance. Many companies seek expert directors to manage their companies (Fairchild & Li, 2005). However, sometimes, it is difficult to attract professionals to sit on family-controlled companies. Currently Indonesian family directors are in their second or third generations. Thus, those family directors have significant influence on the business as compared to outside expert directors because they have different aims for family directors in terms of managing a business. Hence, it is hypothesized that:

H_{5a}: There is a negative relationship between the percentage of experts on the board and firm performance for family-controlled companies.

Several previous researchers (Dunphy, Turner & Crawford, 1997; Hunt, 2000; Ljungquist, 2007; Amran & Che-Ahmad, 2011) have found that experts serving on the board can give ideas or strategies for management to face competition and increase company revenue. Board members must have the competency and capability to manage a company to create benefit for the company (Carpenter & Westphal, 2001; Carver, 2002); and help in decision-making (Amran & Che-Ahmad, 2011).

In today's competitive business environment, a company needs qualified directors. A highly qualified board member can contribute to the company in terms of setting strategies and providing resourceful and innovative ideas to develop the firm (Amran & Che-Ahmad, 2010). Lawler et al. (2003) claimed that professionals can become

more effective strategic business partners, thus indirectly and positively influencing firm performance. Board expertise in areas, such as accounting, costing, financing and law, can specifically affect firm performance (Hillman et al., 2000). In Indonesian non-family companies, the main objective is to increase the shareholders' wealth. Therefore, a company needs expert directors to achieve good firm performance. It is hypothesized that:

H_{5b}: There is a positive relationship between the percentage of experts on the board and firm performance for non-family controlled companies.

3.5.1.5 Females on the Board

Board diversity provides for equitable representation on the board (Keasey, Thompson, & Wright, 1997), which allows access to the talents and perspectives of the diverse members (Pearce & Zahra, 1991; Singh & Vinicombe, 2004; Biggins, 1999). Such diversity contributes to the company through effective, efficient and creativity problem-solving (Robinson & Dechant, 1997). Darmadi (2013) found that a lack of diversity on the board will cause a lack of critical innovation.

Diversity may be measured in many ways, including age and race, but gender-based diversity is one of the most common. Robinson and Dechant (1997) and Alowaihan (2004) found that male directors outperform female directors because female directors lack industry experience and they tend to concentrate on less profitable sectors. Men seem to have higher education levels that can contribute to firm performance. There are different skills sets between female and male directors and bringing the different experiences and skills of female directors to the company would seem to lead to a better corporate governance system (Fondas & Sassalos, 2000). For example, female

directors have a more careful attitude and tend to avoid risks compared to male directors. Women directors do not make hurried decisions and take time to decide correctly (Kusumastutui et al., 2012).

Shim and Eestlick (1998) found that Hispanic female directors had fewer years of business experience, few employees, and smaller annual sales than male directors. There is a significant difference between male directors and female directors with respect to the ratio of revenue. Despite work-life balance issues and perceptions that senior positions are not suited for women, several studies have shown that cultural, social and economic barriers are breaking down. Women usually face cultural obstacles to participate in family enterprises, like the challenges that women face all over the world.

Amran and Che-Ahmad (2010) found that men have a greater chance of being the successor of a family firm. Male directors are expected to have the abilities, experience and knowledge to face competition. There is a perception that men will perform better than women. Moreover, men get more support from families. Indonesian family-controlled companies place an important role on the son as compared to the daughter. That is the reason why male directors succeed most in Indonesian family firms. Hence, it is hypothesized that:

H_{6a}: There is a negative relationship between the number of female directors on the board and firm performance for family-controlled companies.

Female directors are unique, valuable and provide different perspectives during board discussions with respect to achieving firm performance. Female directors who come

from the public sector have experiences in specific areas, such as public relations, law and communication, that can complement the skill areas of male directors, such as in human resources, accounting, operations and marketing (Zelechowski & Bilimoria, 2004).

Jamali, Safieddine, and Daouk (2007) found that female directors on a board can bring advantage for the firm's governance by bringing in different skills, knowledge, experience, fresh ideas and perspectives to board deliberations. Bilimoria and Wheeler (2000) stated that female directors are normally younger than male directors and they may have more up-to-date ideas.

In non-family businesses in Indonesia, female directors on boards contribute to a company by providing different opinions, knowledge and skills. Several previous studies (Fondas & Sassalos, 2000; Huse & Solberg, 2006) have argued that female directors are expected to contribute to reducing management problems. Female directors tend to question the conventional wisdom and are more open to discussions. The diverse view points by female directors can provoke lively board room discussions (Letendre, 2004), hence increasing the quality of decision-making.

Several researchers (Carter, Simkins, & Simpsons, 2003; Bonn, 2004; Smith, Smith, & Verner, 2006; Sanchez & Silaghi, 2017) have found that gender diversity of the board can provide additional value to the company and show a positive relationship between the number of female directors and firm performance. Based on the discussion from several studies, it is hypothesized that:

H_{6b}: There is a positive relationship between the number of female directors on the board and firm performance for non-family controlled companies.

3.5.1.6 Managerial Ownership

Managerial ownership contributes to the alignment of the different interests between the managers and outside shareholders (Hsu, 2010). High managerial ownership can minimize problems and reduce agency costs (Yasser, 2011). Managerial ownership helps management to improve their performance by maximising profits and making careful decisions, because the managers will share the profits and bear the risks of decisions made. These conditions can enhance the performance of a company (Jensen & Meckling, 1976). However, several previous studies (Demsetz, 1983; Fama & Jensen, 1983) have found that managerial ownership has a negative relationship with firm performance. They argued that managers may prefer non-value maximizing activities with a high level of managerial ownership and a high information asymmetrical environment.

Demsetz and Lehn (1985) found a linear relationship between managerial ownership and firm performance. Jensen and Meckling (1976) suggested the alignment-of-interest hypothesis. This hypothesis posits that when management ownership increases, operational performance and firm value increase as well. Itan (2015) explained that managers who control and monitor a firm's equity secure have the most favourable employment conditions. Accordingly, the directors who monitor a firm's assets can potentially expropriate the benefits of outside investors by committing funds to non-beneficial projects that provide personal benefits (Lemmon & Lins, 2003).

Fahlenbrach and Stulz (2010) examined the relationship between managerial ownership and firm performance by using Tobin's Q in US companies from 1988 to 2003. They argued that managerial ownership has a negative relationship with firm performance. Meanwhile, managers tend to decrease their ownership when a firm has good performance and more likely to increase their ownership when the finances of the company are constrained.

Based on the findings in the previous studies, this study expects that managerial ownership has a negative impact on firm performance. At a lower level of ownership, the managers are motivated if they are rewarded with shares; thus, they will do their best to achieve the company's goals and enhance performance. On the other hand, if the level of managerial ownership increases, these managers try to manipulate the financial report, seek personal interest and expropriate the interests of minority shareholders.

In family-controlled companies, the stewardship theory hypothesizes that family ownership contributes to minimizing agency conflicts because shares owned by agents and agency conflicts can be monitored (Fama & Jensen, 1983). Gorriz and Fumas (1996) argued that when shares are concentrated in a few owners, these owners will minimize agency costs and carry out the entire decision process.

On the other hand, the stewardship theory claims that ownership concentration may influence the family relationship in family-controlled companies. Corbetta and Salvato (2004) found that ownership concentration motivates board directors to act as

stewards. Moreover, family-controlled companies have special characteristics, including loyalty and trust (Amran & Che-Ahmad, 2011).

Based on the above discussions, this study expects that managerial ownership by family directors has a positive relationship with firm performance. When family managerial ownership is low, family directors feel less responsible and do not have a sense of belonging. However, when the family ownership increases, the family directors take more effort to control and monitor the company because they feel the company is a part of them (Darmadi, 2012). Large family ownership in a company will motivate family directors to maximize their responsibility and control the company effectively. Thus, this study hypothesizes that:

H_{7a}: There is a positive relationship between managerial ownership and firm performance for family-controlled companies.

In contrast, this study predicts in non-family controlled companies, managerial ownership has a negative relationship with company performance. At a high level of managerial ownership in non-family controlled firms, firm performance will decrease (Amran & Che-Ahmad, 2011). When non-family directors have small ownership, they manage and control the company effectively, thus enhancing firm performance. However, when managerial ownership increases, they will prefer to seek personal interests rather than company's interest. The effect of control rights on firm performance is in line with the argument that majority shareholders will be able to manage the company to obtain a private benefit (Ratnawati et al., 2016). Thus, firm performance will decrease. Based on the discussion above, this study hypothesizes that:

H_{7b}: There is a negative relationship between managerial ownership and firm performance for non-family controlled companies

3.5.2 Attributes of the Board of Commissioners

3.5.2.1 Size of the Board of Commissioners

Indonesia has adopted a two-tier board system, which is a legacy of the Dutch colonial period. This structure separates the board membership into a board of commissioners who act as superintendents and set policies while directors monitor the daily operations of the company. The Limited Liability Company Act of 1995 states that the board directors and board of commissioners are appointed and dismissed by the general shareholders' meeting. Therefore, boards of directors and commissioners must be responsible to the annual general meeting. In comparison to the boards of directors and commissioners in European countries, Indonesian commissioners are not powerful because they are not authorized to appoint or dismiss the board of directors. The managers do not have to be responsible to the board of commissioners. The implication is that the commissioners do not actually supervise the board of directors but instead become "friends" because they are in the same position (Harjito & Singapurwoko, 2014; Itan, 2015).

The board of commissioners in Indonesia is known as *Dewan Komisaris*, and the Code in Indonesia requires that companies have at least three board commissioners. The role of the board of commissioners has been fiercely debated in previous studies. Singapurwoko (2013) argued that the board of commissioners can assist in taking care of stakeholders' interests and the number of board commissioners' influences firm performance. Though not specifically addressing the Indonesian system, the agency

theory might be seen as positing that the board of commissioners is an internal mechanism to carry out the functions of principal supervision and control of the behavior of management. The commissioners bridge the interests of principals and managers in the firm (Sembiring, 2005). Therefore, the board of commissioners plays an important role in monitoring and controlling the actions of managers, thus increasing firm performance (Saragih et al., 2012).

Postma, Ees, and Sterken (2001) examined the relationship between performance and supervisory board in Dutch listed companies. They found that the size of the supervisory board does not determine firm performance. However, they found support for a negative relationship between the number of supervisory board members and firm performance. On the other hand, Bermig and Frick (2010) analyzed the effect of supervisory board size on performance by using 294 German listed companies for the period of 1998-2007. They claimed that the supervisory board seems to have no pronounced effect on operating performance and is negatively related to firm performance.

In Indonesia, the board of commissioners is an important factor in enhancing corporate governance in a company. The board of commissioners can provide a company with strategic direction and help the board of directors to make decisions to achieve performance. From the agency theory perspective, the board of commissioners is an important attribute influencing firm performance (Darmadi, 2012; Saragih et al., 2012; Singapurwoko, 2013).

Several previous studies (Darmadi, 2012; Saragih et al., 2012; Harjito & Singapurowoko, 2014; Itan, 2015) have discussed the impact of the board of commissioners on firm value. Harjito and Singapurowoko (2014) and Itan (2015) argued that a negative relationship exists between the board of commissioners and firm performance. They found that a large board of commissioners will decrease the effectiveness of a company because board commissioners have difficulties in carrying out their duties, including difficulties in communication and coordination among them. However, Saragih et al. (2012) and Darmadi (2012) claimed that a large board of commissioners may influence the relationship positively because they can effectively monitor manager's actions, hence increasing firm performance.

The board of commissioners can provide unbiased views (Darmadi, 2012; Itan, 2015) and bring in new ideas based on their knowledge (Singapurwoko, 2013). Some believe that a small board of commissioners indicates high levels of protect the minority shareholders (Yopie & Itan, 2016). A large board of commissioners also compromises familiarity with family members (Singapurwoko, 2013; Itan, 2015).

Based on the stewardship theory, family members/directors who act as stewards can provide rich knowledge and stronger commitment to the firm than commissioners because family directors understand the operations of the company better as compared to non-executive directors (Saragih et al., 2012). Thus, family firms often choose to have fewer members on the board of commissioners (Surifah, 2013). This study has found mixed findings regarding size of board of commissioners. Therefore, it is hypothesized that:

H_{8a}: There is a negative relationship between the size of the board of commissioners and firm performance for family-controlled companies.

For non-family controlled firms in Indonesia, the functions of the board of commissioners are to monitor and control management while running their business. The board of commissioners checks and balances the behavior of management (Itan, 2015). Darmadi (2012) stated that a large number of board commissioners may increase the firm's performance because they come from different backgrounds and have diverse expertise, characteristics and attributes which can contribute to board processes and decision-making, hence leading to increased firm performance. Itan (2015) found that non-family controlled companies need independent board commissioners because they can provide an unbiased opinion (Darmadi, 2012), bring in fresh ideas and help to make decisions based on knowledge (Saragih et al., 2012; Singapurwoko, 2013). Moreover, the board of commissioners is expected to provide abilities and expertise to improve the decision-making process (Saragih et al., 2012) and not to be controlled by the directors (Singapurwoko, 2013). The board of commissioners might be able to reduce managerial consumption and positively influence the decision-making of directors (Itan, 2015). Harjito and Singapurwoko (2014) explained that the board of commissioners is an independent board between companies and the external environment due to their expertise. Therefore, based on the above, it is hypothesized that:

H_{8b}: There is a positive relationship between the size of the board of commissioners and firm performance for non-family controlled companies.

3.5.2.2 Independence of Board of Commissioners (Unaffiliated Directors)

The Code of Corporate Governance requires at least one member of the board of commissioners to be independent. According to the Limited Liability Company Act No. 40 of 2007 (Article 120, 2nd), independent members of the board of commissioners (unaffiliated directors) are outsiders who are not affiliated with either the boards of directors or commissioners. Independent commissioners (unaffiliated directors) must fulfil the following criteria. They must: 1) not have any position as a director in any other company; 2) not be affiliated with the directors and commissioners; 3) not have any shares or ownership in the company either directly or indirectly; and 4) be an outsider.

The independence of the board of commissioners in Indonesia is known as *dewan komisaris independen*. The potential impact of independent members on the board of commissioners may be examined through the lenses of the agency theory and stewardship theory. The agency theory suggests that independent commissioners are needed to monitor the actions of managers, thus helping the company to increase firm performance (Itan, 2015). For its part, these commissioners have wide networking and show that independence is advantageous for the company.

The Code requires at least 30% of total board commissioners to be independent. Ramdani and Van (2009) argued that board independence can assist the board in taking care of stakeholders' interests. Some researchers have found that the number of independent board commissioners influences firm performance. Some believe that too many independent commissioners are a problem. Saragih et al. (2012) claimed that a high proportion of independent board commissioners could create stifling strategic

actions, over-controlling, monitoring and lack of independence of management. Itan (2015) found that high proportion of independent board commissioners in Indonesian family companies is negatively related to firm performance. Conversely, the agency theory recommends that a large number of independent board commissioners can enhance firm performance.

In family-controlled companies, Singapurwoko (2013) found that family companies sometimes prefer independent members on the board of commissioners (unaffiliated directors) because they give unbiased views (Saragih et al., 2012), offer open and functional counterpoints in decision-making and provide new dimensions of knowledge and skills that may not be found among family directors (Singapurwoko, 2013). Despite these advantages, family-controlled companies in Indonesia do not generally employ independent commissioners (Harjito & Singapurwoko, 2014). Thus, family-controlled firms tend to appoint fewer independent members compared to non-family controlled companies (Itan, 2015).

The stewardship theory posits that family directors who act as stewards can provide more rich-specific knowledge and a stronger commitment to the company than independent commissioners because family members spend more time in the company that they manage. Family directors understand the conditions and company operations better than outside, independent commissioners. Thus, they can make better decisions (Surifah, 2013). Moreover, family owners are afraid to lose their control and believe that family members understand the firm's competitive situation better than independent board commissioners (Harjito & Singapurwoko, 2014; Itan, 2015).

Based on the literature review above, this study expects that independent board commissioners have a negatively significat relationship with firm performance for family-controlled firms. Therefore, it is hypothesized that:

H_{9a}: There is a negative relationship between the number of independent board commissioners and firm performance for family-controlled companies.

In contrast, for non-family controlled firms, this study expects that the number of independent board commissioners is more than in family-controlled firms because the objective of non-family controlled companies is to maximize the shareholders' wealth (Darmadi, 2012).

Researchers have found that a higher proportion of independent commissioners has a positive relationship with firm performance because independent board commissioners possess diverse expertise, knowledge and experience that may improve the board's decision-making (Singapurwoko, 2013). A larger number of independent commissioners in a company will increase the power of corporate governance and monitoring activity of major shareholders will be more effective if the number of independent commissioners is higher (Saragih et al., 2012). Independent commissioners will avoid the moral hazards carried by directors of a company to its interests through ownership accrual estimates that have an impact on earnings management in order to increase firm value (Itan, 2015). This shows that more independent commissioners can enhance shareholders' value. Furthermore, from the corporate governance perspective, independent commissioners are unbiased, credible and protect the interest of minority shareholders; they have the knowledge, skills and experience to provide independent judgements on strategy and performance (NCG,

2006). Therefore, independent commissioners (unaffiliated directors) have a positive impact on firm performance (Darmadi, 2012; Saragih et al., 2012). Based on the discussion above, it is hypothesized that:

H_{9b}: There is a positive relationship between the number of independent board commissioners and firm performance for non-family controlled companies.

3.5.3 Audit Committee Characteristics

The Code (2006) in Indonesia requires an audit committee to be established in every company. Family companies need an audit committee to help them give an accurate financial report and provide useful information for investors when they want to invest their funds in the company. This study examines three audit committee characteristics: 1) audit committee size; 2) audit committee independence; and 3) audit committee meetings.

3.5.3.1 Audit Committee Size

The Code (2006) requires companies to have at least three audit committee members comprising one independent commissioner and two members from outside. The company should have an audit committee no later than six months after listing on the Indonesian Stock Exchange. A listed company that has not appointed an audit committee must declare so in a written statement (NCG, 2006).

The audit committee is responsible for controlling the financial reports and monitoring the external audit and internal control systems (including internal audit). Alijoyo et al. (2004) stated the audit committee has the function of helping commissioners to improve the accuracy of financial reports, create a climate of

discipline and increase the effectiveness of the internal audit function and external audit. The audit committee also identifies issues that require the attention of commissioners. In this way, the financial statements disclosed by the company may have a higher degree of reliability. Aldamen et al. (2012) provided empirical evidence that firms which establish an independent audit committee, report earnings containing smaller discretionary accruals compared to companies that do not form an independent audit committee.

Empirical evidence on the relationship between audit committee size and firm performance is inconsistent. By using a market approach (Tobin's Q), Chan and Li (2008) and Hamid et al. (2014) argued that audit committee size influences firm performance. On the other hand, Ilona (2008) found a significantly positive influence of audit committee size on firm performance. However, she used the accounting approach measurement for firm performance, i.e., ROA. Independent directors may reduce the agency problems in a company (Erickson, Park, Reising, & Shin, 2005). Erickson et al. (2005) argued that audit committee independence also can reduce agency problems. A larger number of audit committee members can effectively control and monitor management activity, prevent fraud, provide an accurate financial report and improve firm performance and earnings management. Therefore, audit committee size is posited to have a positive influence on firm performance.

Based on the stewardship theory, the stewards protect and maximise shareholder wealth through firm performance. In family-controlled companies, family directors have a high concentration of ownership and the power to control all the operational activities of the company (Miller & Breton-Miller, 2006). Therefore, they do not need

large audit committee in the board because family companies invest all their wealth in the company, the controlling shareholders will tend to have the motivation to act altruistically to achieve goals and benefits for the stakeholders (Bubolz, 2001; Davidson, Stewart, & Kent, 2005). Based on the arguments above, this study predicts that a smaller audit committee can enhance firm performance. Hence, it is hypothesized that:

H_{10a}: There is a negative relationship between audit committee size and firm performance for family-controlled companies.

For non-family controlled companies, the agency theory posits that a high number of audit committee members can lead to better firm performance. That is because a small audit committee lacks diversity of skills and knowledge, thus making it ineffective (Turley & Zaman, 2007; Hamid et al., 2014). Audit committee is viewed as an important element of corporate governance because independent directors of the audit committee can through various monitoring processes, and check the faulty conduct of managers. The audit committee may help in ensuring the reliability of the financial reporting process by keeping a check on manipulative, and self-centered activities of managers. Governance codes all over the world require firms to set audit committees and ensure their independence.

Naimah and Hamidah (2012) examined the effect of audit committee characteristics on performance during the financial crisis and concluded that smaller committees with more experience and financial expertise were positively and significantly associated with company performance. Furthermore, Al-Matari et al. (2014) also

revealed that audit committee size was found to have a significant relationship with company performance. Hence, it is hypothesized that:

H_{10b}: There is a positive relationship between audit committee size and firm performance for non-family controlled companies.

3.5.3.2 Audit Committee Independence

The Code Corporate Governance in Indonesia requires a company to have a minimum of three audit committee members compromising one independent member and two members from outside. The independence of the audit committee is measured through ratio of independent members on the committee to all members of the audit committee (Kang & Kim, 2011).

Several scholars have studied audit committee independence and firm performance. Swamy (2011) found that audit committee independence guarantees corporate governance practices. Abdullah et al. (2008) and Hamid et al. (2014) stated that audit committee independence is an important element in minimizing financial fraud; companies will operate optimally and increase its value. Therefore, an audit committee with a higher number of independent members is viewed more favorably.

For family-controlled companies, the Code in Indonesia suggests that an audit committee should have a minimum of one independent member. Al-Matari et al. (2014) argued that no relationship exists between independence of audit committee members and family firm performance. This argument is consistent with Klein (2002) and Abbot et al. (2004) who claimed that independent of audit committee can decrease family firm performance and ensure low shareholder returns. Based on the

stewarship theory, families director act as steward and minimize the cost for hiring the outsider board and committee to monitor the families director action. Thus, base on discussion above, this study predicts that audit committee independence has a negative relationship with family firm performance. Therefore, it is hypothesized that:

H_{11a}: There is a negative relationship between audit committee independence and firm performance for family-controlled companies.

In contrast, this study predicts a positive relationship between audit committee independence and firm performance for non-family controlled companies. Based on the agency theory, the majority shareholders tend to use their power to seek their personal interest and neglect the minority shareholders (Khang & Kim, 2011). Therefore, in terms to proctect the minority shareholders, they elected an independent audit committee to monitor management and reduce fraud (Swamy, 2011).

The independence of audit committee increases its strength, and reduces the agency problem and the opportunity for expropriation by insiders (Yeh et al., 2009). Independence makes the committee more objective in monitoring the transparency of the financial reporting, and unbiased toward the executives, thereby reduces the agency problem between executives and other shareholders. Chan and Li (2008) found a positive relationship between the independence of audit committee and company performance. Similarly, Naimah and Hamidah (2017) found a positive association between independent audit committee members and profitability as a proxy for company performance. Based on the discussion above, it is hypothesized that:

H_{11b}: There is a positive relationship between audit committee independence and firm performance for non-family controlled companies.

3.5.3.3 Audit Committee Meetings

Audit committee meetings refer to the frequency of meetings conducted in a year. Audit committee meetings are important for monitoring management activity. The Code of Corporate Governance Indonesia (2006) requires audit committee meetings to be held at least once every quarter. If audit committee meetings are seldom held, this will lead to ineffective management. Xie, Davidson and Dadalt (2003); Raghunandan and Rama (2007) and Al-Matari et al. (2014) claimed that the frequency of meetings of the audit committee has an impact on the level of audit committee activity.

In this current study, audit committee meetings refer to the frequency of audit committee meetings held in a year (Al-Matari et al., 2014). Many believe that more frequent meetings of an audit committee can provide useful information about auditing and accounting issues. Menon and Williams (1994) and Sharma et al. (2009) stated that a smaller number of audit committee meetings would lead to ineffective supervision of management. A company that has fraud will have misstatements in its financial reports and such misstatements have been related to fewer audit committee meetings (Hamid et al., 2014). A high frequency of audit committee meetings in a company can lead to accurate financial report, monitoring of internal controls and identification of management risks, therefore, leading to enhanced firm performance. In addition, only a few studies have examined the relationship between audit committee meetings and firm performance in Indonesia.

Based on stewardship theory perspective, family companies tend to have lower frequency of audit committee meeting because usually families will have their informal meeting when they meet. Larger audit committees can also lead to inefficient governance, thus yielding more frequent audit committee meetings (Vafeas, 1999). Sharma et al. (2009) find evidence that the number of audit committee meetings is negatively associated with firm performance.

Anderson, Ferreira and Peters (2004) found that audit committees of S&P 500 firms whose memberships are entirely independent are associated with a significantly lower cost of debt financing. They also find that yield spreads for these firms are negatively related to frequency by which they meet in a year. Thus, they provide market-based evidence that higher frequency of audit committees meeting influence the firm performance. Hence, it is hypothesized that:

H_{12a}: There is a negative relationship between the frequency of audit committee meetings and firm performance for family-controlled companies.

In non-family controlled companies, an audit committee should hold more frequent audit committee meetings to be more efficient in its role of overseeing financial reports and internal control of the company (Vafeas, 2005). Audit committees must hold four meetings a year and the chairman must control and schedule the meetings (Al-Matari et al., 2014) to be consistent with the Code in Indonesia, which requires the audit committee to meet at least once every quarter.

Audit committees that meet more frequently are better informed about the company circumstances (Al-Matari et al., 2014), and provide a more effective oversight and

monitoring mechanism of financial activities, which includes the preparation and reporting of company financial information. Abbott et al. (2004) found that the likelihood of companies restating their financial reports significantly decreased if the audit committee held at least four meetings a year. Similarly, there is evidence that audit committees of companies in financial difficulties do not hold meetings as frequently as those without financial difficulties (Alqatatim, 2018). Hsu (2007) also found that the number of audit committee's meetings and company performance are positively and significantly associated.

The agency theory posits that regular meetings of the audit committee could reduce agency conflicts and help minority shareholders by providing transparent, timely and accurate information (Bansal & Sharma, 2016). Al-Matari et al. (2014) argued that a higher audit committee meeting frequency will enhance firm performance. Based on discussion above, it is hypothesized that:

H_{12b}: There is a positive relationship between the frequency of audit committee meetings and firm performance for non-family controlled companies.

3.6 Conclusion

This chapter discusses the agency and stewardship theories, the theoretical framework and the development of hypotheses, based on evidence from previous literature. This chapter highlights the justifications for the development of the hypotheses. The research method to test these hypotheses and research design are provided in Chapter 4.

CHAPTER 4

RESEARCH METHOD AND DESIGN

4.1 Overview of The Chapter

This chapter is divided into six sections. It highlights the procedures for developing and conducting the research, including three equations for testing the hypotheses formulted in Chapter 3. In Section 4.2, the study examines the data collection process, the sample selection and the instruments used in this study. Section 4.3 discusses the panel data used in the data analysis. Data analysis and interpretation of the models are explained in Section 4.4; the research model and measurement in Section 4.5; followed by Section 4.6 which describes the variables and measurements used. Section 4.7 summarizes the research method and design used in the study.

4.2 Data Collection

Data in this study was collected using secondary sources (Cooper & Schindler, 2003). This study used the annual financial reports of publicly listed companies (PLCs), Indonesia Capital Market Directory (ICMD) report, books, magazine articles and newspapers to gather the necessary information. From magazine articles, the information gathered are about the value of quarterly market value, and from the newspapers are information on the daily and weekly market value of shares. The data from the annual financial statements were downloaded from the Indonesian Stock Exchange website (www.idx.co.id) and from the ICMD report published by Bisnis Indonesia and from books on family business and newspapers. The main aims of using secondary data are to get accurate data or information and to save time and

money (Ghauri & Gronhaugh, 2002). Secondary data is more likely to be accurate compared to collecting data on one's own (Stewart & Kamins, 1993) and is more easily collected (Denscombe, 1998).

Family-controlled PLCs in Indonesia are not listed as such in annual reports; therefore, the definition of a family-controlled company in this current study is that of a company in which an individual or a group of family members holds 20% or more of the outstanding shares (Itan, 2015). Equity ownership was gathered from indirect and direct shareholding of family members reported in the annual financial report or ICMD. The mechanisms of corporate governance, such as the attributes of board of directors, board of commissioners and audit committee were gathered from the website of the Indonesian Stock Exchange and the ICMD report.

The data on firm performance (Tobin's Q and ROE) was extracted from financial reports (balance sheet and profit and loss) downloaded from the Indonesian Stock Exchange website and gathered from the ICMD.

4.2.1 Population and Sample

This study used panel data for five years starting from 2010 to 2014 of PLCs on the Indonesian Stock Exchange. However, companies categorized under the finance sector were taken out from this study because of their differences in compliance and regulatory requirements. As at 31 December 2014, total companies on the Indonesian Stock Exchange listing statistics (http://www.idx.co.id) were 451 listed companies.

Table 4.1
Sample Selection

	Number of Companies
Total PLCs listed on Bursa Efek Indonesia	451
(-) Finance	71
Total Non-Financial PLCs	380
(-) Companies listed since 2011 and above	118
Total PLCs in the sample for 2010 to 2014	262

From the total number of 451 firms listed on Bursa Efek Indonesia as at 31 December 2014, 71 companies in the financial sector were excluded because these companies have a different regulatory framework that does not apply to other listed companies. The remaining non-financial PLCs totalling 380 companies were reduced by the removal of 118 companies because those companies listed since 2011 and above. The baseline for this study was companies that existed from 2010 until 2014. The final sample in this study was 262 PLCs and the total observation for the five years was 1,310 samples.

This study selected data for 2010 to 2014 (five continuous years) because the 2014 financial report was the latest available one for all PLCs in Indonesia. This study is also concerned with the issue of family and non-family businesses and the influence on firm performance. This study expects to contribute useful information about family and non-family businesses during this five-year period.

PLCs were chosen as sample in this study because information about financial report statement on PLCs can be easily collected by accessing the Indonesian Stock Exchange website. The data in the ICMD is also useful as this data, such as market share price, cannot be found in the annual reports. Lastly, the use of PLCs enables a

comparison to be made with previous studies conducted in Indonesia as most of the Indonesian studies have used PLCs.

4.2.2 Instruments

When collecting data from the annual financial and ICMD reports, the problem faced was accuracy. To ensure the accuracy of the data, the data had to be cross-referenced to other sources, whenever possible. In the annual reports, data relating to shareholding ownership, the profile of directors, financial statements and notes to the accounts, were scrutinised.

To determine family-controlled companies, this study first prepared a list of PLCs by type of industry. After that, information on the PLCs was gathered from annual reports. Previous studies have used various definitions of a family firm. For example, Wan-Hussin (2009) measured a family firm by the proportion of family members on the board of directors. In this current study, however, a family-controlled firm is determined as a firm in which an individual or a group of family members holds 20% or more of the outstanding shares of a company (Itan, 2015). This information was gathered from the ICMD database report and cross–checked with the information available in annual reports.

Information on the board of directors, such as size, members' qualifications, frequency of meetings, expertise, diversity and managerial ownership and information on the board of commissioners, such as size and independence (unaffiliated directors) were extracted from the annual reports from the profile of the directors/commissioners. These profiles were also gathered from the website

(www.businessweek.com) to determine the educational background and expertise of directors.

Financial data, such as total equity, net income, earnings before tax, shareholder's equity, total debt, ROE, EPS and market value per share were gathered from the annual financial statements at Yahoo Finance (www.finance.yahoo.com) and ICMD.

Information about the attributes of the commissioners, including size and independent commissioners (unaffiliated directors) was gathered from the annual report section on corporate governance that contains information on the number of commissioners. In addition to checking the ICMD, the independence of board of commissioners (unaffiliated directors) could also be gathered from the corporate governance section in the annual financial report.

As for audit committee characteristics, information on audit committee size and independence was gathered from the annual report section on corporate governance, which contains information on the number of members on the audit committee. In addition to checking the ICMD, information could also be gathered from the corporate governance section in the annual financial report, which explains how many times the audit committee conducted its meetings and how many members attended those meetings.

All data were transferred into worksheets. The information on family-controlled and non-family controlled companies, structures of the board of directors and board of commissioners and audit committee characteristics were matched with the name of

the PLC. Before further work was done, the researcher established whether data was available for all the five years from 2010 to 2014. Once data was complete, the final sample was determined.

Table 4.2
Data Sources

	Sources	Related Information
Board of Directors	Annual Reports	Names, number of directors, number of meetings, gender, education and professional qualifications, number of shareholdings by each director.
	Indonesian Capital Market Directory (ICMD)	Names, number of directors, and gender.
Board of Commissioners	Annual Reports	Names, number of commissioners and number of unaffiliated directors.
	Indonesian Capital Market Directory (ICMD)	Board of commissioners - name, number of commissioners.
Audit Committee	Annual Reports	Names, independent audit committee members, size of audit committee, number of meetings.
	Indonesian Capital Market Directory (ICMD)	Names and size of audit committee.
Control Variables	Annuals Reports	Debt and total assets.
	Indonesian Capital Market Directory (ICMD)	Debt, total assets, listing date and incorporation date.

Based on Table 4.2, the information was mainly collected from annual reports. Most economic and financial research in corporate governance uses publicly reported financial information in the annual financial audit reports of the company. Hence, this study used quantitative analyses and data from the annual reports to examine the relationship between attributes of the board of directors, attributes of the board of

commissioners and audit committee characteristics of family-controlled companies and non-family controlled companies with firm performance.

The annual financial reports of PLCs use Generally Accepted Accounting Principles (GAAP) and are audited by independent or external auditors. Therefore, a high degree of confidence can be given to the reliability of the data. The information that can be found in various sections of the annual reports is displayed in Table 4.3.

Table 4.3
Various sections in annual reports used in data gathering

Sections in the annual reports	Information colleted from sections
Director's profile	Name, educational qualification, professional skills and gender.
Corporate governance report	Board size, unaffiliated directors, board meetings, audit committee size and audit committee meetings
Director's report	Directors' shareholdings
Analysis of shareholdings	Directors' shareholdings
Financial statement	Financial information

4.3 Panel Data

Panel data analysis is a combination of the cross-sectional and time-series data. Panel data is robust to several violations of the Gauss Markov assumption (assumption of classical regression analysis). Modeling the independent variables on the dependent

variable in the regression is referred to as panel data (Ariefianto, 2012). The general estimated equation for analysing panel data is as the following equation:

$$Y_{it} = \beta_0 + \beta_1 X_{it} + \beta_2 X_{it} + \ldots + \beta_n X_{it} + \varepsilon_{it}$$

This study used panel data because the data was gathered from the five-year period from 2010 until 2014. With enough repeated cross-sectional observations, analysis of panel data allowed the researcher to study the dynamics of change in a short-time series. The panel data can improve the quality and quantity of data in a way that is not possible using only one of the two-dimensions (Baltagi & Wu, 1999; Greene, 2003; Gujarati, 2003).

Panel data regression analysis endows it with both spatial and temporal dimensions. This helps to monitor some kinds of variables eliminated despite without observing them, by observing the time to time that change in the dependent variable. It monitors the omitted variables that differ between cases but are constant over time. Panel data is also used to control the omitted variables that vary from time to time but are constant between cases. There are some types of panel data analysis models: constant coefficient model, random effects model (REM) and fixed effects model (FEM).

4.3.1 The Constant Coefficients Model

The first type of panel model, the constant coefficient model, refers to both intercepts and slopes. If no significant effect is present for a spatial or temporal relationship, all data are regressed uing the Ordinary Least Squared (OLS) model. Although most of the time, either spatial effects or temporal effects exist, there are times when none of this is statistically significant when run using the pooled regression model (Stock & Watson, 2007). Pooled Least Squares (PLS) estimates panel data with the assumption

that the regression error is constant and is not affected by the object. This technique is effective to improve precision if the assumption is made that the relationship between all the independent and dependent variables are constant in the period and the objects used in the analysis.

4.3.2 The Fixed Effects Model (FEM)

Another type of panel data model has constant slopes but intercepts that differ according to the cross-sectional (group) unit, such as, firms. Even though there is insignificant temporal effect, a significant difference exists between companies in different types of models. The intercept is cross-section specific and different from one enterprise to another, whether or not it differs from time to time.

In examining the impacts of FEM, the regression model is used as a basis for comparison. In the first step, the researcher examines time effects and the group (company). This can be tested by using the last or first time point as a reference. The paired t-test between the reference values assumes that the amount of time of the effect is equal to zero and the test is done. Researchers test for group, time and the effects of interaction, with the assumption that not all degrees of freedom have been consumed. By doing this test, it is expected that there is no autocorrelation problem when improvements are made to the adjusted R^2. The FEM estimates panel data regression with the assumption that the error affects the different objects as well as time and is fixed.

Because the estimators in the FEM depend only on the mean deviation from their firms, they are sometimes referred to as the group estimator. When the cross-sectional

effect is correlated with the regressors, the effect will be correlated with the cross-sectional mean group. OLS estimation on samples collected will be inconsistent, even if within the estimator, it is consistent. However, if the FEM is uncorrelated with the regressors, the group will not be an efficient estimator. If there are variations between the group means, the group estimator can be used, but it would be inconsistent if the fault cross-sectional correlates with the group means of the regressor (Davidson & MacKinnon, 1993).

4.3.3 The Random Effects Model (REM)

The REM is a regression with a random constant term. The REM estimates panel data regression with the assumption that the error affects the different objects as well as time and random. The way to deal with mistake or ignorance is to assume that the intercept is the result of a random variable. The function of random result is a random error plus average value. However, this particular error term in cross-sectional study that shows the deviation of the constant cross-sectional units (the company) should be correlated with the error variable if it is to be modelled (Greene, 2003).

4.3.4 Choosing between the Fixed and Random Effects Models

Hausman test is the generally accepted way of choosing between a FEM and REM. Statistically, fixed effects are not the most efficient model to run, but it is always a reasonable thing to do with panel data (they always give consistent results). On the other hand, REM will provide better p-values because it is a more efficient estimator; hence, it is more appropriate if statistically justifiable to do so. Selection of appropriate estimation techniques must be adapted to the conditions of the data. To

choose the best model among the OLS, FEM and REM, one should use the Chow and Hausman tests to know which model is the most suitable model.

The Chow test is used to choose between OLS without dummy variables or the FEM. A regression model with a fixed effect panel is feasible for predicting the dependent variable, if the probability value is less than α (significance level). If the number is greater than or equal to significance with α the panel data regression models with OLS (Ariefianto, 2012).

The Hausman test is defined as a statistical test to look into whether the FEM or REM is more appropriate to use. The Hausman test statistics follow the statistical distribution of Chi Square with the provisions that if the probability value is less than α, the correct model is a FEM; while conversely, if the value is α, the more appropriate model is the REM.

The f-test is used to test the influence of the all independent variables simultaneously, as well as to test the linearity of the relationship between the independent and dependent variables. If the number is smaller than α significance, the independent variables simultaneously affect the dependent variable or the means used appropriate models. Conversely, if the value is less than α significance, a conclusion can be made that the independent variables simultaneously have no effect on the dependent variable (Ghozali, 2001).

A t-test is used to test the effect of each independent variable on the dependent variable in a model. If the number is smaller than α significance, the independent

variables have a significant influence on the dependent variable. If the number is greater than or of equal significance to α, then the independent variable has no significant effect on the dependent variable (Ghozali, 2001).

The resulting regression model fit to the panel regression is described by the coefficient of determination (R^2), Standard Error of Regression and Akaike Information Criteria. Coefficient of Determination describes the percentage of model fit, or a value that indicates the extent to which the independent variables explain the dependent variable. According to Gujarati (2003), R^2 in a regression equation is susceptible to the addition of independent variables. In situations in which a growing number of independent variables are involved, then the value of R^2 will be even greater. Adjusted R^2 is used in multiple linear regression analysis, and R^2 is used in simple regression analysis. R^2 values range from 0-100.

4.4 Data Analysis and Interpretation

Data must be cleaned and screened before conducting the analyses. Further, the diagnostic tests need to be carried out by applying the PLS and Generalised Least Square (fixed effects and random effects) methods.

4.4.1 Getting data ready for analysis

Screening and cleaning of data prior to the main analysis is time consuming and sometimes tedious. However, before the main analysis is conducted, careful consideration and resolution of the issues are fundamental to ensure an honest analysis of the data (Tabachnick & Fidell, 1996, p. 57). When all data have been keyed into the worksheet, incomplete data can be excluded.

The data was analysed using the software Statistical Package for the Social Sciences (SPSS) and EViews. A few steps had to be completed before the data could be considered as reasonably good and of guaranteed quality. The steps include getting data ready for analysis (Sekaran, 2003, p. 301) by screening and cleaning them.

4.4.2 Diagnostic tests

Diagnostic regressions were conducted before each model was tested in this study. Diagnostic regressions can verify if the assumptions of multiple regression are met and to avoid misleading results. Diagnostic tests include normality, linearity and outlier tests of the sample in this study. Further, the autocorrelation test and multicollinearity test are explained.

4.4.2.1 Outliers

Hair, Anderson, Tatham, and Black (2006) said that outliers are observations that have their own unique characteristics. There are three ways to identify an outlier (Hamilton, 2003). First, using the studentized residual to observe whether the dependent variable is unusual for certain values of the independent variables. Normally, studentized residual values are above +2 or -2. Second, leverage is utilized to reveal whether an observation of an independent variable has deviated from the effects of the estimation of the regression coefficients. An observation has the potential to be an influential outlier if an observation has high leverage. Observations are relevant with leverage of more than 2k/n, where k is the number of independent variables and n is number of observations (Hamilton, 2003). The last method is identifying an influential observation to find outliers. When the observation is

dropped, it may significantly change the estimate of coefficients. Hence, the studentized residual method was applied in this study.

Observations that are influential outliers should be identified. The effect of outliers can be problematic and a determination should be made as to whether they must be included in a study or discarded (Hair et al., 2006). Before running the regression, observations with a high studentized residual, defined as above +2 or -2, must be deleted.

4.4.2.2 Normality and Linearity

Normality is defined as the distribution of the error that is normally distributed. Histrogram is used to detect the normality for each variable. Normality is not needed to estimate the regression coefficients when using multiple regressions. However, for hypothesis testing, it is needed (Hair et al., 2006). Data is explored to confirm that normality assumptions hold true when using parametric tests. Several graphs predicted residuals are used to ensure normality, namely, quartile of a carriable versus the quartile of a normal distribution plot (Q-Q normal probability plot), standardized normal probability plot (P-P normal probability plot) and kernel density estimates plot.

Pallant (2001) claimed that skewness and kurtosis values of the variable can be used to assess normality. Hair et al. (2006) argued that the linear influence between dependent variables and independent variables. Moreover, if values of standard deviations in the dependent variable are more than the value of standard deviations of the residuals, it indicates that nonlinearity is not a problem in regression. The Kolmogorove-Smirnov test can be used to make this assessment.

4.4.2.3 Multicollinearity

One important assumption that underlies multiple regressions is multicollinearity; Multicollinearity means that between two independent variables have no exact collinearity existing (Cheng, Hossain & Law, 2001). If there is high multicollinearity, it will impact the estimated regression coefficient which then becomes unstable and unreliable. Further, it causes small changes to drastically increase in the model or sample (Hamilton, 2003). Hence, it will be difficult to accurately estimate the coefficient of the model tested (Cheng et al., 2001). Therefore, the possible existence of multicollinearity of the data should be checked first. This test may cause the researcher to obtain the wrong signs for the regression coefficients, insight t-ratios, high adjusted R-squared and few insignificant t ratios and high pair-wise correlation among regressors (Gujarati, 2003).

This current study conducted a multicollinearity test to inspect the data. Examining the correlation matrix for the independent variables is the simplest way to check for multicollinearity. A value of 0.8 is acceptable (Bryman & Cramer, 1990). Meanwhile, a correlation with a value of 0.9 and above has a serious multicollinearity problem (Hair et al., 2006). Another way to detect themulticollinearity problem is to use variance inflation factor (VIF). If the value of VIF is more than 10, it is highly correlated (Hair et al., 2006).

4.4.2.4 Autocorrelation

Autocorrelation refers to violation of the assumption that size and direction of one error term has no bearing with another; and the errors are uncorrelated and independent. In order of notation, OLS assumes: $E(\mu i\ \mu j) = 0$. Autocorrelation can be

associated with time-series data and cross-sectional data. The past is the best predictor of the future. Meanwhile, what occurs in time *t* is the best predictor of what will occur in time *t+1*. As a result, observations are not usually independent. For the error term, differences exist between actual and predicted terms in a one-time period and are probably related (positively) to error in the next. If a series is "mean-reverting", then errors may be negatively correlated.

Autocorrelation may be due to data manipulation and model misspecification. A time-series is created by aggregating the data and introducing a certain amount of smoothing by creating a quarterly data set by summing or averaging over months. Therefore, the randomness of some disaggregated data is lost. This smoothing can lead to systematic patterns in the error, therefore leading to the possibility of autocorrelation.

The Durbin-Watson test is another way to determine if autocorrelation exists. It is absolutely standard to report the Durbin-Watson *d* test for autocorrelation when reporting regression results for time-series. It indicates positive autocorrelation if a *d* value is closer to 0, while negative autocorrelation is indicated if a *d* value is closer to 4. Determining if the model has positive or negative correlation is close enought to define if a *d* value is 0 or 4; there are both upper and lower critical values for *d,* which depend on the number of explanatory variables (k) and the number of observations (N).

4.5 Research model and measurement

Equation 4.1 (Family-controlled companies) is as follows:

$$FPERF = b_0 + b_{2a}BSIZE_{it} + b_{3a}BQUAL_{it} + b_{4a}BMEET_{it} + b_{5a}BEXP_{it} + b_{6a}FDIR_{it} + b_{7a}MOWN_{it} + b_{8a}BCSIZE_{it} + b_{9a}BCINDE_{it} + b_{10a}ASIZE_{it} + b_{11a}AINDE_{it} + b_{12a}AMEET_{it} + b_{13}DEBT_{it} + b_{14}FAGE_{it} + b_{15}LNFSIZE_{it} + b_{16}IP_{it} + b_{17}TS_{it} + b_{18}PROP_{it} + + b_{19}OTHERS_{it} + \alpha_i + \lambda_t + \mu_{it}$$

(Equation 4.1)

Notes: FPERF=Firm performance, BSIZE=Board size, BQUAL=Board qualification, BMEET=Board meeting, BEXP=Board expertise, FDIR=Females on the board, MOWN=Managerial ownership, BCSIZE=size of Board of Commissioners, BCINDE=Independence of board commissioners, ASIZE=Audit committee size, AINDE=Audit committee independence, AMEET=Audit committee meeting, DEBT=firms's debt, FAGE=Firm age, LNFSIZE=Firm size, IP=Industrial Products, TS=Trading services, PROP= Properties and OTHERS=Others.

Equation 4.1 was tested using panel data regression analysis for family-controlled companies as sample. Equation 4.1 is derived from previous researchers (Villalonga & Amit, 2006; Amran & Che-Ahmad, 2011; Yasser, 2011) and includes two new variables identified by the researcher, which were tested in this study. These are: 1) board expertise (BEXP); and 2) independence of board of commissioners (unaffiliated directors) (BCINDE). Equation 4.1 tests the hypothesized relationship on attributes of the board of directors, attributes of the board of commissioners and audit committee characteristics and firm performance, which include H_{2a}, H_{3a}, H_{4a}, H_{5a}, $H_{6a,}$ H_{7a}, H_{8a}, H_{9a}, H_{10a}, H_{11a} and H_{12a}. The dependent variable is firm performance (accounting and market approaches) as explained in Section 4.6.1 below and the independent variables are attributes of the board of directors, attributes of the board of commissioners and audit committee characteristics as suggested by the literature and as explained in Section 4.6.2 below.

Equation 2 (Non-family controlled companies) is as follows:

$$NFPERF = b_0 + b_{2b}BSIZE_{it} + b_{3b}BQUAL_{it} + b_{4b}BMEET_{it} + b_{5b}BEXP_{it} + b_{6b}FDIR_{it} + b_{7b}MOWN_{it} + b_{8b}BCSIZE_{it} + b_{9b}BCINDE_{it} + b_{10b}ASIZE_{it} + b_{11b}AINDE_{it} + b_{12b}AMEET_{it} + b_{13}DEBT_{it} + b_{14}FAGE_{it} + b_{15}LNFSIZE_{it} + b_{16}IP_{it} + b_{17}TS_{it} + b_{18}PROP_{it} + + b_{19}OTHERS_{it} + \alpha_i + \lambda_t + \mu_{it}$$

(Equation 4.2)

Notes: NFPERF=Firm performance, BSIZE=Board size, BQUAL=Board qualification, BMEET=Board meeting, BEXP=Board expertise, FDIR=Females on the Board, MOWN=Managerial ownership, BCSIZE=size of Board of Commissioners, BCINDE=Independence of board commissioners, ASIZE=Audit committee size, AINDE=Audit committee independence, AMEET=Audit committee meeting, DEBT=firm's debt, FAGE=Firm age, LNFSIZE=Firm size, IP=Industrial Products, TS=Trading services, PROP= Properties, and OTHERS=Others.

Equation 4.2 tests for non-family controlled companies sample only. Equation 4.2 is adopted from previous works (Villalonga & Amit, 2006; Amran & Che-Ahmad, 2011; Yasser, 2011). Equation 4.2 is developed for the hypotheses H_{2b}, H_{3b}, H_{4b}, H_{5b}, H_{6b}, H_{7b}, H_{8b}, H_{9b}, H_{10b}, H_{11b} and H_{12b}.

4.6 Variables Definition and Measurement

The data collected for this study comprise three categories of variables: 1) dependent variable; 2) independent variables; and 3) control variables.

4.6.1 Dependent Variable

This study uses firm performance as the dependent variable. The proxies used in this study to measure company performance are Tobin's Q and ROE. In this study Tobin's Q is used as an indicator of firm performance (Yasser, 2011; Villalonga & Amit, 2006, Amran & Che-Ahmad, 2011; Itan, 2015) because investors use it to gauge firm

performance. Tobin's Q is defined as market equity value and debt divided by total assets. In Indonesia, the market equity value is the share price at fiscal year end.

Another proxy to measure firm performance in this study is ROE. ROE is defined as net income divided by shareholders' equity (Miller & Breton-Miller, 2006; Yasser, 2011; Amran & Che-Ahmad, 2011). Sun and Tong (2003) argued that firm performance which is measured by the accounting approach is better than the market approach, the reason being the accounting approach is directly related to its financial survivability than the market approach and allows the evalution of firm performance for PLCs.

4.6.2 Independent Variables

The independent variables in this study are divided into four main parts: 1) family-controlled companies; 2) attributes of the board of directors; 3) attributes of the board of commissioners; and 4) audit committee characteristics.

4.6.2.1 Family-controlled Companies

Many previous researchers (La Porta et al., 1999; Miller & Breton-Miller, 2006, Villalonga & Amit, 2006; Ibrahim et al., 2009; Amran & Che-Ahmad, 2011, Yasser, 2011; Itan, 2015) have studied family companies and many definitions of family-controlled companies exist. In this study, the definition of a family-controlled firm (FCF) is consistent with that of previous studies (Itan, 2015) and it is supported by the rule of transfer pricing documentation in Indonesia which states that an owner who holds the ownership of more than 20% is considered as a family company.

In this study, to determine if a company is a family-controlled firm, the researcher read the *Director's Profile* section in the annual reports. After that, the researcher went through the ICMD to record the director's shareholding and how many family members hold direct or indirect shares. For this study, an individual holding a minimum 20% of the shares of the firm is considered as a substantial shareholder and the company is considered to be family-controlled. If this criterion was not meet, then the company was not considered to be a family-controlled firm. A non-family controlled firm is one where the directors do not have any family relationship with the company or management. Companies are coded using a dummy variable (0, 1). A family-controlled company is coded as 1 and a non-family controlled company as 0 (Itan, 2015).

4.6.2.2 Board Size

Board size (BSIZE) is defined as total number of directors in a firm. To determine the number of directors, the researcher looked at the list of directors in the annual reports and the ICMD. Previous studies in Indonesia have used this metric (Astuti & Yuniarto, 2008; Saragih et al., 2012; Itan, 2015; Badu & Appiah, 2017).

4.6.2.3 Board Qualification

Board qualification (BQUAL) refers to the level of education of a director including diploma, bachelor's degree, master's degree or doctorate. The measurement used is the number of directors possessing a degree divided by the total number of directors. Very few studies have considered the impact of directors' qualification on firm performance in Indonesia. Most of these studies have been done in other countries (Yasser, 2011; Amran & Che-Ahmad, 2011).

4.6.2.4 Board Meeting

Board meeting (BMEET) is defined as the frequency of meetings held by the Board in one year. To determine the number of board meetings, the researcher read the corporate governance section in the annual reports and the director's profile information in the corporate governance section, which mentions how many times the board held meetings in a year. A board meeting is an attribute of the Code of Corporate Governance in Indonesia, and this metric has been applied in previous studies (Saragih et al., 2011; Singapurwoko, 2013).

4.6.2.5 Board Expertise

To determine board expertise, the researcher carefully identified whether a director has a professional title. In Indonesia, if someone has a professional title, he or she uses the title after his/her name. Examples of professional titles in accounting are CPA, chartered accountant (CA), certified management accountant (CMA), the association of chartered certified accountants (ACCA) and *bersertifikat konsultan pajak* (BKP), and in engineering, it is Ir. The measurement for directors with professional qualification (BEXP) is the number of directors with professional qualifications divided by the total number of board of directors (Amran & Che-Ahmad, 2011). To the researcher's knowledge, board expertise has not been examined in Indonesia, and only a few studies have examined board expertise overseas, such as in Malaysia (Amran & Che-Ahmad, 2011).

4.6.2.6 Females on the Board

To determine females on the board, this research examined director's profile in annual reports to determine if a director is a male or female director. Females on the board in

this study was measured by the total number of female directors on the board (Darmadi, 2013; Sanchez & Silaghi, 2017).

4.6.2.7 Managerial Ownership

To determine managerial ownership, the names of directors with shareholdings were retrieved from audit reports. Then, the directors' names were recorded in the worksheet. The researcher then identified whether the directors are family directors and the percentage of shareholding. Directors without any ties to the largest family shareholder were classified as non-family directors (Itan, 2015).

This step had to be done carefully to avoid double counting. In this study, managerial ownership is defined as the ownership of shares of the company by a director on the board (Jensen & Meckling, 1976, Amran & Che-Ahmad, 2011, Yasser, 2011, Itan, 2015).

4.6.2.8 Size of Board of Commissioners

Based on Indonesian regulations, Indonesia companies have adopted a two-tier board system, i.e., the boards of directors and commissioners. To determine the size of the board of commissioners, the researcher read the profile of the commissioner and the ICMD to identify how many board commissioners the company has. The size of the board of commissioners (BCSIZE) is defined as total number of board commissioners. The measurement has been applied in previous studies in Indonesia (Astuti & Yuniarto, 2008; Saragih et al., 2012).

4.6.2.9 Independence of Board of Commissioners

The Code (2006) in Indonesia requires a minimum of one independent commissioner (unaffiliated director) of the total number of commissioners. Unaffiliated directors may be appointed during the company's general meeting of shareholders, prior to the company's listing (Singapurwoko, 2013). Furthermore, Bapepam-LK requires that at least one commissioner should be independent.

To determine the independent board commissioners (unaffiliated directors), the researcher read the director's profile and the ICMD to identify how many independent commissioners are in the company from the total board of commissioners. So, independence of board of commissioners (BCINDE) is defined as the number of independent board commissioners divided by total board commissioners. This measurement has been applied in previous studies in Indonesia (Saragih et al., 2012; Singapurwoko, 2013; Itan, 2015).

4.6.2.10 Audit Committee Size

Audit committee size (ASIZE) is defined as the total number of audit committee members in a company. To define audit committee size, the researcher read annual reports under the corporate governance section on audit committee. Audit committee size can be found in the ICMD. The measurement has been applied in several previous studies in Indonesia (Astuti & Yuniarto, 2008; Saragih et al., 2012; Al-Matari et al., 2014; Hamid et al., 2014; Bansal & Sharma, 2016).

4.6.2.11 Audit Committee Independence

Bapepam-LK requires a PLC to have a minimum one independent commissioner and two other audit committee members from outside the PLC. Audit committee independence (AINDE) is defined as the total number of independent audit committee members in a company divided the total number of audit committee members. To determine audit committee independence, the researcher read the annual reports under the corporate governance section about audit committee; audit committee size can also be found in the ICMD. This measurement has been applied in several previous studies in Indonesia (Astuti & Yuniarto, 2008; Saragih et al., 2012; Al-Matari et al., 204; Hamid et al., 2014; Bansal & Sharma, 2016).

4.6.2.12 Frequency of Audit Committee Meetings

Audit committee meeting (AMEET) is an important attribute of corporate governance in Indonesia. The variable was determined by determining the frequency of meetings held by the audit committee in a year. To determine audit committee meeting, the researcher read the corporate governance section in the annual report. This measurement has been applied in several previous studies in Indonesia (Astuti & Yuniarto, 2008; Saragih et al., 2012; Al-Matari et al., 2014; Hamid et al., 2014; Bansal & Sharma, 2016).

Table 4.4
The Measurement for Dependent and Hypothesized Variables and Expected Signs

Acronym	Variable	Measurement	Family Expected Sign (+/-)	Non-family Expected Sign (+/-)	Sources
Dependent (PERF):					
Q	Tobin's Q	Market value of equity plus debt divided by book value of total assets.	n.a.	n.a	Itan (2015)
ROE	Return on Equity	Net income divided by shareholders' equity	n.a.	n.a.	Badu and Appiah (2017)
Hypotheses:					
FCF (H_1)	Family-controlled company	Family-controlled company is defined as family directors having ownership of a minimum of 20% in the company. It is coded as 1 if it is family-controlled company, 0 otherwise.	+		Itan (2015)
BSIZE (H_2)	Board size	Total number of directors sitting on the board.	-	+	Singapurwoko (2013)
BQUAL (H_3)	Board qualification	Percentage of directors with degree divided by total directors.	-	+	Amran and Che-Ahmad (2011)
BMEET (H_4)	Board meetings	Total number of board meetings held in a year	-	+	Singapurwoko (2013)

Table 4.4
The Measurement for Dependent and Hypothesized Variables and Expected Signs (Continued)

Acronym	Variable	Measurement	Family Expected Sign (+/-)	Non-family Expected Sign (+/-)	Sources
BEXP (H_5)	Board expertise	Professional qualification is defined as an individual having professional title, such as CA, CPA, CMA, ACCA, BKP, Ir, PPAP. Percentage of directors with professional qualification divided by total directors.	-	+	Amran and Che-Ahmad (2011)
FDIR (H_6)	Female on board	Total number of female directors sitting on the board	-	+	Darmadi (2013)
MOWN (H_7)	Managerial ownership	Percentage of shares owned by board of directors divided by total number of shares issued	+	-	Itan (2015)
BCSIZE (H_8)	Size of board commissioners	Total number of board of commissioners	-	+	Itan (2015)
BCINDE (H_9)	Independence of board of commissioners	Percentage of independent board of commissioners divided by total board of commissioners.	-	+	Itan (2015)
ASIZE (H_{10})	Audit committee Size	The total number of audit committee members	-	+	Hamid et al. (2014)
AINDE (H_{11})	Audit committee independent	The total number of independent audit committee members	-	+	Hamid et al. (2014)
AMEET (H_{12})	Audit committee meetings	The total number of meetings held by audit committee in a year.	-	+	Al-Matari et al. (2014)

4.6.3 Control Variables

In order to identify the specific effects of the attributes of the board of directors, attributes of the board of commissioners and audit committee characteristics on firm performance, this current study controlled for the effect of debt, firm size, firm age, and industry type. Debt, firm size, firm age and industry type are found to covary with many board characteristics and other governance variables (Fiegener & Brown, 2000; Nicholson & Kiel, 2004; Amran & Che-Ahmad, 2011).

4.6.3.1 Debt

Singapurwoko (2013) argued that most Indonesian companies prefer debt over equity and internal over external finance. Companies facing a financial deficit will first choose debt that will be observed later as a higher debt ratio (Myers & Majluf, 1984). High debt will make investors cautious in investing because of higher risks (Weston & Copeland, 1992).

Sonfield and Lussier (2004) found that first generations in family companies prefer to use equity rather than debt to finance their company. Chen and Jaggi (2000) stated that family firms prefer to acquire external capital from the debt. The measurement of debt (DEBT) in this study is book value of long-term debt divided by total assets.

4.6.3.2 Firm Age

Firm age is defined as the number of years that a company has been in operation. Firm age has been linked to many decisions of a firm (Gregory, Rutherford, Oswald, & Gardiner, 2005; Boone, Field, Karproff, & Raheja, 2007; Amran & Che-Ahmad, 2011).

Firm age impacts firm performance with the experience, market strategy and knowledge of the firm. Older firms are expected to have experience, reputation and image that can contribute to good firm performance compared to younger firms. Younger firms areexpected to have less power, less reputation in the market and are still developing their market position that needs a huge cost structure (Lipczinsky & Wilson, 2001). Boone et al. (2007) found that firm age can increase the benefits of monitoring by board members. However, the magnitude of these relationships may differ. In this study, firm age (FAGE) is measured by the number of years since the company was incorporated.

4.6.3.3 Firm Size

Gorriz and Fumas (1996) found that most family firms are smaller than non-family firms. However, a family firm has greater opportunity for managers to be active than when the firm size is large (Helmich, 1977). Dalton, Daily, Ellstrand, and Johnson (1998) argued that small firms have significant influence on board size than large firms. Similarly, Lehn, Patro and Zhao (2004) found that board size is positively related to firm size but negatively related to growth opportunities.

In a family business, family members sometimes do not consider expanding because they fear losing the family control if they raise funds from external or new investors (Church, 1993). However, some of the largest companies in Indonesia, such as Salim Group and Ciputra Group, are family-controlled. Helmich (1977) stated family-controlled companies have greater opportunity to develop high level management and more complex corporate governance practices. Therefore, larger family-controlled companies may have more qualified, skilled and experienced candidates (Harveston,

Paula, Peter, & Julie, 1997). Measurement of firm size (LNFSIZE) is calculated by dividing the natural log of book value with total assets.

4.6.3.4 Industry Type

Industry type may be related to performance outcomes. Haniffa and Hudaib (2006) stated the trading sector performs relatively better than other sectors. Indonesian companies are separated into three main industries as follow: 1) manufacturing (industrial products and properties); 2) non-manufacturing (trading services); and 3) others (plantation, construction, infrastructure projects, mining, hotels and technology). Kuryanto and Syafruddin (2005) found that manufacturing and non-manufacturing sectors outperform other sectors because they have intellectual capital that is crucial for the success of the company; it also contributes to profitability and firm value. In this study, industry types were separated into these sectors: trading services (TS); industrial products (IP); properties (PROP); plantation, construction, infrastructure projects, mining, hotels and technology are grouped as OTHERS because these industries are smaller in number.

Table 4.5
The Measurement of Control Variables

Acronym	Variable	Measurement
DEBT	Debt	The book value of long-term debt divided by total assets
FAGE	Firm age	Number of years since incorporation
LNFSIZE	Firm size	Natural log of the book value of total assets
IP	Industrial Products	Industrial product is coded as 1, others are 0
TS	Trading services	Trading services is coded as 1, others are 0
PROP	Properties	Properties is coded as 1, others are 0
OTHERS	Others	Plantation, construction, infrastructure projects, technology, hotel and mining are coded as 1, others are 0

4.7 Conclusion

This study uses secondary data to examine the relationship between family-controlled companies, attributes of the board of directors, attributes of the board of commissioners and audit committee characteristics and firm performance. The dependent variable, firm performance, is measured using the accounting and market approaches. The independent variables are categorized into family-controlled companies, attributes of the board of directors, attributes of the board of commissioners and audit committee characteristics. The sample size for this study is 262 companies on the Indonesian Stock Exchange from 2010 to 2014 (five years). This study adopts panel data regressions to test the conceptual models.

CHAPTER 5

RESULTS AND DISCUSSION

5.1 Overview of the Chapter

This chapter presents empirical evidence concerning the relationship between family-controlled companies, attributes of the board of directors, attributes of the board of commissioners and audit committee committees and company performance. This chapter comprises seven sections. The results of the outlier test are presented in Section 5.2, Section 5.3 explains the descriptive data. Section 5.4 discusses univariate analyses. Section 5.5 explains the testing for panel data. Then, Section 5.6 reports the results of the main Equation 4.1 (family-controlled companies) and Equation 4.2 (non-family companies). Finally, Section 5.7 concludes the chapter.

5.2 Results of Outliers

A total of 262 PLCs were used in this study with 1,310 observations for the five-year period. This study used panel data because it is a more sensitive measurement of the changes that could take place between points in time (Cavana, Delahaye, & Sekaran, 2000). Further, the results produced by panel data are more representative and meaningful because they are consistent and stable to make generalizations for the population.

Table 5.1
Analysis of the sample

Observations	Number of Companies
Total observations in 2010	262
Total observations in the sample for 2010 to 2014	1,310
Companies discarded (outliers)	(15)
Final sample	1,295

The final sample was screened by examining the basic statistics for the frequency distribution of data. Descriptive statistics that include the maximum, minimum, mean, median and standard deviation values of the variables were scrutinized to detect any mistakes or missing values in all characteristics of the variables. Further, to identify the most extreme high and low values, the studentized deleted residual was run. The findings show that 15 samples exhibit extreme values for non-family controlled firms. Based on testing done above (studentized deleted residual), 15 outliers were discarded to avoid distortion in the results (Hair et al., 2006). The final dataset was 1,295 observations (595 observations for family-controlled firms and 700 observations for non-family controlled firms) as presented in Table 5.1.

5.3 Descriptive Data

This section presents basic information regarding the attributes of the board of directors and board of commissioners and audit committee characteristics of family and non-family controlled firms in Indonesia.

Table 5.2
Frequency and percentage of family and non-family controlled companies

Type	Frequency	Percent
Family-controlled	595	45.95
Non-family controlled	700	54.05
Total	1,295	100

Based on Table 5.2, the sample size for family-controlled companies is 45.95% (595 observations) of the total sample, while non-family controlled companies is 700 observations or 54.05% of the total sample. The findings of this study are similar to those of previous studies (Claessens et al., 2000; Amran & Che-Ahmad, 2011; Itan, 2015) whereby family-controlled companies totalled almost 46% of PLCs.

Table 5.3
Frequency and percentage of family and non-family controlled companies by industry

Industry	Family Controlled		Non-Family Controlled	
	Frequency	Percent	Frequency	Percent
Trading services	150	25.21	95	13.57
Properties	90	15.13	70	10.00
Hotel	80	13.45	65	9.29
Industrial products	65	10.92	190	27.14
Infrastructure Projects	60	10.08	50	7.14
Construction	55	9.24	65	9.29
Technology	40	6.72	70	10.00
Plantation	30	5.04	25	3.57
Mining	25	4.20	70	10.00
Total	595	100	700	100

Table 5.3 shows the statistics of family and non-family controlled firms in relation to the business as defined by the Indonesian Stock Exchange. The largest sector for family-controlled companies is in trading services (25.21%), followed by properties (15.13%), industrial products (10.92%) and infrastructure projects (10.08%). For non-family controlled firms, the largest sectors are industrial products (27.14%), trading services (13.57%), properties (10.00%) and mining (10%).

5.3.1 Structure of Board of Directors

This section presents the structure of board of directors in family and non-family controlled firms in Indonesia.

Table 5.4
Frequency and percentage of attributes of board of directors

	Size	Family Controlled		Non-Family Controlled	
		Frequency	Percent	Frequency	Percent
Board Size	Less than 3	370	62.18	349	49.85
	4 to 7	194	32.61	265	37.86
	More than 7	31	5.21	86	12.29
Board Qualification	Less than 50%	14	2.33	8	1.14
	More than 50%	581	97.65	692	98.86
Board Meeting	Less than 12	213	35.80	106	15.14
	13 to 23	272	45.71	285	40.72
	More than 24	110	18.49	309	44.14
Board Expertise	Less than 50%	571	95.97	654	93.43
	More than 50%	24	4.03	46	6.57
Female Directors	Less than 2	539	90.59	634	90.57
	3 to 4	51	8.57	62	8.85
	More than 5	5	0.84	4	0.58
Managerial Ownership	Less than 20%	0	0.00	685	97.86
	More than 20%	595	100.00	15	2.14

The Code (2006) requires that the number of directors in a company should be at least three directors. From Table 5.4, board size is divided into three categories. This study reveals that most family-controlled firms have less than three directors with 62.18% of the sample, followed by 32.61% family-controlled companies having four to seven members and only 5.21% of family-controlled companies having a board size of more than seven members. Similarly, most non-family controlled companies have less than three members which represents 49.85% of the sample, followed by 37.86% with four

to seven members and only 12.29% with more than seven members. The findings for family and non-family controlled firms show that they favour a small board size (less than three members). The findings are consistent with previous works done by Hamid et al. (2014), Itan (2015) and Ferris et al. (2003). Small boards have been claimed to be more effective than large boards and make decision-making easier. However, the findings of this study contradict some past works done in Indonesia by Darmadi (2012) and Surifah (2013).

In family-controlled companies, 97.65% have boards in which more than 50% of the board directors of family-controlled companies have a tertiary degree qualification. In non-family controlled companies, 98.86% have boards in which more than 50% of the board of directors have a tertiary degree qualification. Only 2.33% of family-controlled companies and 1.14% of non-family controlled companies have less than 50% of board directors with a degree qualification. This indicates that companies are well informed on the importance of qualified directors to be on the board.

For board meeting, the Code (2006) requires companies to conduct board meetings at least once a month or 12 times a year. Table 5.4 illustrates the frequency of board meetings. The results show that highest frequency of meetings for family-controlled companies is 13 to 24 meetings in a year or 45.71% of the sample, followed by 35.80% with less than 12 meetings in a year and only 18.49% of family-controlled companies with board meetings more than 24 times a year. In contrast, the majority of non-family controlled companies had more than 24 meetings in a year with 44.14% of the sample, followed by 40.72% with 12 to 24 meetings and only 15.14% had meetings of less than 12 times a year. These results show that most family and non-

family controlled companies do comply with the Code (2006) requirement of having meetings at least once per month.

Bapepam suggests that the board of directors should use their expertise to carry out their duties. With respect to family-controlled companies, 95.97% of the companies are in the category of less than half of the board members having a professional title, which in this study means expertise. The same relationship also applies to non-family controlled companies in which 93.43% of the companies are in the category of less than 50% of the members of the board having a professional title. Only 4.03% of family-controlled firms and 6.57% of non-family controlled firms are in the category where 50% of board directors have a professional title.

The results of Table 5.4 show that male directors dominate most family-controlled companies and non-family controlled companies. For example, the largest category of female directors, which is less than two, comprises 90.59% of family-controlled and 90.57% of non-family controlled companies. The category of two to four members comprises 8.57% of family-controlled companies and 8.85% of non-family controlled companies. Lastly, the category of more than four female directors is only 0.84% for family-controlled companies and 0.58% for non-family controlled companies. The findings are consistent with previous studies (Amran & Che-Ahmad, 2011; Kusumastutui et al., 2012).

Table 5.4 indicates that most managers in family-controlled companies (100%) and non-family controlled companies (2.14%) hold more than 20% of shares in the company. It indicates that managerial ownership in family-controlled companies is

controlled by own family directors; therefore, family directors have power and are authorized to control all company activities. Non-family controlled companies show that 97.86% of shares in non-family companies are owned by independent directors. It indicates that non-family directors hold a small amount of shares in the companies with the majority not exceeding 20% ownership.

5.3.2 Structure of Board of Commissioners

This section presents the structure of board of commissioners in family and non-family controlled companies in Indonesia.

Table 5.5
Frequency and percentage of attributes of board of commissioners

	Size	Family Controlled		Non-Family Controlled	
		Frequency	Percent	Frequency	Percent
Size of Board of Commissioners	Less than 3	63	10.59	70	10.00
	4 to 7	460	77.31	430	61.43
	More than 7	72	12.10	200	28.57
Independent Commissioners	Less than 30%	24	4.04	80	11.43
	30% to 50%	521	87.56	556	79.43
	More than 50%	50	8.40	64	9.14

Table 5.5 describes the size of the board of commissioners. The findings show that family and non-family controlled firms have almost similar sized boards of commissioners. Most of these companies have four to seven board commissioners with 77.31% for family-controlled firms and 61.43% for non-family controlled firms. About 12.10% of family-controlled companies and 28.57% of non-family controlled firms have more than seven members on their board of commissioners. Meanwhile, many family and non-family controlled firms do comply with the Code (2006), which requires a minimum of three commissioners on the board. About 10.59% of the

family-controlled firms and 10.00% of the non-family controlled firms do not follow the Code (2006) requirements. These companies still do not have three commissioners on the board, even though the Code (2006) requires it. The reason is because some Indonesian companies put more attention to directors who manage the company rather than board of commissioners as supervisors.

The results show that majority of these families (87.56%) and non-family controlled (79.43%) companies have 30% to 50% independent commissioners. These companies (family and non-family controlled firms) have followed the guidelines of Bapepam-LK (2014) and comply with the Code (2006), which requires that the minimum percentage of independent commissioners should be at least 30% of the total commissioners. There are 8.40% for family-controlled firms and 9.14% for non-family controlled firms in which the membership of independent commissioners is more than 50%. However, 4.03% of family-controlled firms and 11.43% of non-family controlled firms do not comply with Bapepam-LK (2014) because less than 30% of the board commissioners are independent. So, there is still room for improvement for companies that do not follow the rules proposed by the Code (2006) and Bapepam-LK (2014).

5.3.3 Audit Committee Characteristics

This section presents the audit committee characteristics in family and non-family controlled companies in Indonesia.

Table 5.6
Frequency and percentage of audit committee characteristics

	Size	Family Controlled		Non-Family Controlled	
		Frequency	Percent	Frequency	Percent
Audit Committee Size	Less than 3	589	98.99	687	98.14
	More than 3	6	1.01	13	1.86
Independent Audit Committee Members	Less than 30%	21	3.53	75	10.71
	30% to 50%	573	96.30	625	89.29
	More than 50%	1	0.17	0	0.00
Audit Committee Meetings	Less than 4	127	21.35	147	21.00
	More than 4	468	78.65	553	79.00

The Code (2006) requires that the audit committee must have at least three members. From the result in Table 5.6, it shows that about 98.99% of family-controlled firms and 98.14% of non-family controlled firms have less than three members on the audit committee. This indicates that the level of compliance among Indonesian companies with the Code (2006) is still lacking. The reason behind this finding may be because Indonesian companies appoint and rely more on external auditors or some Indonesian companies do not hire more audit committee members in order to minimize expenses.

The results in Table 5.6 show that both family (96.30%) and non-family (89.29%) controlled firms have 30% to 50% audit committee members who are independent. The finding is consistent with Alijoyo et al. (2004) in Indonesia companies. Only 17% of family-controlled firms and 0% of non-family controlled firms have more than 50% audit committee members who are independent. Lastly, 3.53% of family-controlled companies and 10.71% of non-family controlled companies do not comply

with Bapepam-LK (2014) because less than 30% of the audit committee members are independent.

Table 5.6 also illustrates the frequency of audit committee meetings. The results show that 78.65% family and 79.00% non-family controlled companies have more than four meetings in a year. Only 21.35% of family and 21% of non-family controlled companies held audit committee meetings less than four times a year. These results show that both family and non-family controlled companies have complied with the Code (2006) by frequently holding audit committee meetings in the company. Therefore, the audit committee is efficient.

Table 5.7

Descriptive statistics for family-controlled companies and non-family controlled companies

	Family-Controlled Companies					Non-Family Controlled Companies				
	N	Min	Max	Mean	Std. Dev.	N	Min	Max	Mean	Std. Dev.
Q	595	0,21	22,72	1,91	2,36	700	0,10	12,40	1,49	1,29
ROE	595	(13,44)	64,82	0,16	2,61	700	(7,68)	3,85	0,07	0,53
BSIZE	595	2,00	12,00	4,26	1,81	700	2,00	12,00	4,80	2,06
BQUAL	595	0,25	1,00	0,89	0,16	700	0,17	1,00	0,91	0,15
BMEET	595	2,00	55,00	16,30	13,63	700	2,00	52,00	22,72	13,53
BEXP	595	0,00	1,00	0,08	0,15	700	0,00	1,00	0,12	0,19
FDIR	595	0,00	6,00	0,54	0,85	700	0,00	4,00	0,53	0,73
MOWN	595	0,20	0,93	0,61	0,18	700	0,00	0,65	0,01	0,07
BCSIZE	595	2,00	10,00	3,86	1,49	700	2,00	22,00	4,66	2,49
BCINDE	595	0,14	0,75	0,41	0,11	700	0,13	0,86	0,40	0,12
ASIZE	595	1,00	5,00	3,01	0,33	700	2,00	5,00	3,09	0,43
AINDE	595	0,20	1,00	0,34	0,05	700	0,20	0,50	0,33	0,04
AMEET	595	0,00	44,00	6,37	7,45	700	0,00	29,00	5,70	6,23
FAGE	595	6,57	65,04	29,76	10,03	700	4,69	64,44	31,09	11,57
FSIZE (Billion Rupiah)	595	10,05	13,92	12,07	0,71	700	9,52	14,37	12,24	0,80
Debt	595	0,00	7,69	0,61	0,60	700	0,00	5,03	0,50	0,36
Valid N (listwise)	595					700				

Notes: Q=Tobin's Q. ROE=Return on equity. BSIZE=Board size. BQUAL=Board qualification. BMEET=Board meeting. BEXP=Board expertise. FDIR=Female director. MOWN=Managerial ownership. BCSIZE=Board of commissioner size. BCINDE=Independent of board commissioners. ASIZE=Audit committee size. AINDE=Audit committee independent. AMEET=Audit committee meeting. FAGE=Firm age. FSIZE=Firm size. DEBT=company's debt.

Table 5.7 shows the results of the descriptive statistics of all variables for both the family-controlled companies and non-family controlled companies on the Indonesian Stock Exchange. The descriptive statistics show that family-controlled firms have higher mean values than non-family controlled companies for company indicators Tobins' Q (mean = 1.91 and ROE (mean = 0.16)). Meanwhile, family-controlled companies contribute higher performance as compared to non-family controlled companies in Indonesia.

In terms of board of director attributes, board size is four members per board for family and non-family controlled firms. This finding supports previous works done in Indonesia (Itan, 2015; Singapurwoko, 2013; Darmadi, 2012). Thus, companies in Indonesia comply with the Code (2006), which suggests that minimum board size is three persons. On average, 91% of non-family controlled companies listed on the Indonesian Stock Exchange have directors with at least a degree qualification. However, family-controlled companies have a slightly lower percentage of degreed directors, which is 89%. This shows that family-controlled companies prefer family members to run the companies rather than outside professional directors.

With respect to board meetings, overall, family-controlled and non-family controlled companies listed in Indonesia had meetings more than 12 times per year. Thus, these companies in Indonesia followed the guideline of Bapepam-LK (2014) that suggests directors hold a meeting every month to discuss strategies, solve problems and make decisions to enhance firm performance. In terms of board expertise, 8% of family-controlled firms and 12% of non-family controlled firms have experts on the board. This result suggests that the number of expert directors on the board is still low.

Lastly, the mean of female directors on the board is one member per board for all companies, both family-controlled and non-family controlled. The findings show that firms need to add more female directors to bring in different skills, knowledge, experience, fresh ideas and perspectives to board deliberations (Jamali et al., 2007).

In terms of managerial ownership, on average, managerial ownership in Indonesian non-family controlled companies is about 2% of the total shareholdings. Family directors hold a greater number of shares (61%) than non-family directors (1%). Although the number of shares held by non-family directors is low compared to the family directors, non-family directors are rewarded with commissions and bonuses for a job well done.

With respect to board of commissioner attributes, the mean for size of board of commissioners is four members per board for family and non-family controlled firms. This number indicates that firms in Indonesia comply with the Bapepam-LK (2014), which states that the minimum member of board commissioners should be three persons. In terms of commissioner independence, 40% of board commissioners are independent commissioners. Thus, companies in Indonesia follow the guidelines and comply with the Code (2006), which suggests that 30% of board commissioners should be independent.

With respect to audit committee characteristics, the mean of audit committee size is three members and audit committee independence is 33% for family and non-family controlled firms. This finding demonstrates that firms in Indonesia comply with the Code (2006), which suggests that a audit committee must comprise three members

and 30% of them should be independent. In terms of frequency of audit committee meetings, Bapepam L-K (2014) suggests that the minimum frequency of audit committee meetings should be four times per year. On average, the frequency of audit committee meetings for family and non-family companies is six times per year.

In terms of the control variables, the average amount of debt in the companies ranges from 50% to 60%. In terms of firm size, most companies in Indonesia have a firm size, on average, of Rp 12 billion. This amount is quite similar for family and non-family controlled companies. The companies surveyed are found to have an average firm age of 29 to 31 years.

5.4 Univariate Analysis

In this study, the t-test and Pearson correlation matrix was conducted for both family and non-family controlled companies.

5.4.1 T-test for family and non-family controlled companies

This study aims at investigating firm performance of family and non-family controlled companies and evaluates if there are any differences in mean between both. It ran independent sample t-test to test hypothesis 1.

Table 5.8
Independent sample t-test

	Levene's Test for Equality of Variances	t-test for Equality of Means
Q	0.000	0.075
ROE	0.008	0.054

Notes: FC=Family-controlled, NFC=Non-family controlled, Q=Tobin's Q, ROE=Return on Equity.

Table 5.9
Performance mean of family-controlled companies and non-family controlled companies

	FC	NFC
Q	1.906	1.490
ROE	0.163	0.0688

Notes: FC=Family-controlled, NFC=Non-family controlled, Q=Tobin's Q, ROE=Return on Equity.

Table 5.8 shows that Levene's Test for Equality of Variances for Tobins' Q (0.000) and ROE (0.008) have a significant value < $\alpha = 0.05$. It indicates that the variance of the family-controlled companies differs from non-family controlled companies. The t-test for Equality of Means for Tobins'Q (0.075) and ROE (0.054) > $\alpha = 0.05$. Meanwhile, the family controlled companies (H_1) have higher firm performance than non-family controlled companies in this study. As shown in Table 5.9, family-controlled companies have higher mean value for both indicators of firm performance than non-family controlled companies. Therefore, it confirms that family-controlled companies perform better than non-family controlled companies when Tobin's Q and ROE are used to measure performance. These results are consistent with previous local works (Sujoko & Sobiantoro, 2017; Darmadi, 2013; Itan, 2015) and studies conducted in other countries (Corbetta & Salvato, 2004; Ismail & Mahfodz, 2009;

Amran & Che-Ahmad, 2011; Dewantoro, 2011; Yasser, 2011; Berg & Bart-Jan, 2014). Family-controlled firms have a significantly positive relationship with firm performance as both the agency theory and stewardship theory posit. The findings support previous studies (Sujoko & Sobiantoro, 2007; Darmadi, 2013; Itan, 2015) that have found that family spirit and effective control are reflected in a company's strategy in terms of generating higher firm performance and profitability.

Family-controlled firms are believed to achieve competitive advantage and have a high sense of belonging that make owners become more concerned with the survival of companies. Family-controlled companies have incentives to reduce the agency problems between agents and principals, and thus, minimize agency costs (Harjito & Singapurwoko, 2014). Ibrahim et al. (2009) said that family-controlled firms have higher firm performance (ROE as firm performance indicator) than non-family controlled firms.

Indonesian family-controlled firms have better profitability and efficiency than those owned by non-family shareholders. Further, family-controlled firms report better net income than non-family controlled firms. Family-controlled companies outperform because family ownership tends to enhance firm value and cost efficiency, thus, promoting a higher ROE. Therefore, the findings in this study are significant and positive with respect to firm performance by both performance measurements (Tobins' Q and ROE). Thus, hypothesis H_1 is supported in this study.

5.4.2 Pearson Correlation Matrix

The Pearson correlation matrix was utilized to examine multicollinearity among the variables. Table 5.10 and Table 5.11 show that the value of Pearson correlation coefficient between the independent variables is lower than 0.80 (Gujarati, 2003) and 0.70 (Pallant, 2001; Hair et al., 2006). Therefore, the results show no multicollinearity problem among the independent variables.

5.4.2.1 For Equation 4.1 (Family-Controlled Companies)

Table 5.10
Pearson correlation test for family-controlled companies

Correlations - family

	TobinQ	ROE	BSIZE	BQUAL	BMEET	FDIR	BEXP	MOWN	BCSIZE	BCINDE	ASIZE	AINDE	AMEET	FAGE	FSIZE	DEBT	IP	PROP	TS	OTHERS
TobinQ	1																			
ROE	.044	1																		
BSIZE	.023*	.012	1																	
BQUAL	.003	-.025	-.073	1																
BMEET	-.065	.034*	-.028	-.045	1															
FDIR	-.058	.005	.081	.074	.031	1														
BEXP	.092*	.038	.414**	.050	.115**	.148**	1													
MOWN	-.105*	.000	.134**	.120**	.194**	.041	-.012	1												
BCSIZE	-.070	.042	.539**	-.008	-.099*	.098*	.138**	.106**	1											
BCINDE	.094*	-.059	.004	.041	.086*	-.032	.050	.178**	-.070	1										
ASIZE	.134**	-.011	.048	.005	-.018	-.008	.101*	-.008	.098*	-.003	1									
AINDE	-.096*	.023	-.045	.041	-.030	.005	-.091*	-.023	-.085*	-.005	.887**	1								
AMEET	.153**	-.003	.087	.007	.000	.075	.000	-.031	.131**	.081	.281**	.197**	1							
FAGE	-.089*	.018	.098*	.008	.047	.010	-.040	-.007	.143**	.018	.082	-.057	.174**	1						
FSIZE	-.048	-.007	.588**	-.001	-.042	.059	.096*	.138**	.613**	.121**	.102*	-.084*	.157**	.138**	1					
DEBT	.375**	-.022	-.082*	.022	.084*	-.064	.009	-.078	-.089*	.189**	-.023	.007	.147**	.080	.112**	1				
IP	.104*	.024	.035	.042	-.099*	.017	.232**	.055	.110**	.057	.015	-.033	.010	.140**	.037	-.072	1			
PROP	-.095*	.031	.100*	.063	.080	.131**	.096*	-.033	.170**	-.068	-.094*	.108**	.155**	-.009	-.009	.149**	.113**	1		
TS	.007	.045	-.028	.078	-.092*	.195**	.064	-.042	.022	-.087*	.106**	-.099*	.011	.189**	.181**	.118**	.156**	.245**	1	
OTHERS	.010	-.073	-.068	.134**	.072	-.084*	.241**	.033	-.086*	.096*	-.032	.028	.097*	.100*	.128**	.246**	.285**	.448**	.816**	1

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

5.4.2.2 For equation 4.2 (Non-Family Controlled Companies)

Table 5.11
Pearson correlation test for non-family controlled companies

Correlations - Non family

		Q	ROE	BSIZE	BQUAL	BMEET	FDIR	BEXP	MOWN	BCSIZE	BCINDE	ASIZE	AINDE	AMEET	FAGE	FSIZE	DEBT	IP	PROP	TS	OTHERS
Q		1																			
ROE		.160**	1																		
BSIZE		.095*	.098*	1																	
BQUAL		-.040	.001*	-.032	1																
BMEET		.022	.078*	.353**	.038	1															
FDIR		-.087*	-.057	.028	.110**	.005	1														
BEXP		.178**	.078*	.178**	.107**	.158**	.053	1													
MOWN		.030	.012	.101**	-.011	.144**	.060	-.027	1												
BCSIZE		.031	.057	.484**	.022	.198**	-.031	-.018	.004	1											
BCINDE		.100**	.047	.043	.075*	.145**	.016	.097*	-.011	.158**	1										
ASIZE		-.007	.029	.204**	.077*	.067	-.028	-.017	-.083	.322**	-.039	1									
AINDE		-.003	-.045	.191**	-.070	-.073	.031	-.032	.061	.291**	.021	.938**	1								
AMEET		-.028	.031	.115**	.124**	.118**	.222**	.027	.032	.087*	.014	.193**	.180**	1							
FAGE		-.082*	.051	.178**	.049	-.035	.091*	-.043	.117**	.142**	-.036	.099**	-.049	.102**	1						
FSIZE		-.078*	.142**	.511**	.139**	.234**	.119**	.036	-.006	.448**	.053	.282**	.242**	.138**	.144**	1					
DEBT		.319**	-.071	-.078*	-.081*	.123**	-.060	-.032	-.001	-.067	-.003	-.028	.094*	.139**	-.021	.148**	1				
IP		.247**	.064	.142**	.039	-.048	-.039	.128**	-.067	.023	.014	.083*	-.092*	-.018	.128**	-.038	-.012	1			
PROP		-.088*	.008	.095*	.030	.217**	-.010	.277**	-.071	.099**	-.020	-.008	-.021	.089*	.146**	.074	.120**	.111**	1		
TS		.001	.010	.192**	.031	.128**	.039	.011	-.022	.111**	.073	-.079*	.044	.018	.059	.113**	.036	.203**	.203**	1	
OTHERS		.098**	-.052	.029	-.069	.012	-.008	.253**	.102**	.028	-.081	.024	.029	-.048	-.041	.079*	.047	.353**	.353**	.848**	1

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Table 5.10 presents the correlation matrix for family-controlled companies. BSIZE has a relationship with ROE. In Indonesian companies, the Code requires a minimum of three members on the board of directors. For BQUAL, the correlation shows a significantly positive relationship with Q. Besides the number of board of directors, director qualifications are an important element for enhancing firm performance. In terms of BMEET, a strong positive correlation exists with ROE. FDIR is positively related to ROE. The finding shows that the presence for female directors may help companies increase performance. Next, BEXP has a strong correlation with Q, BSIZE, BMEET and FDIR. This finding indicates that the presence of directors who have professional skills may help a company to achieve better performance. MOWN shows a mixed direction in findings, whereby it is negatively correlated with Q, PER, BSIZE and BQUAL, but positively related to BMEET. For BCSIZE, there is a positive relationship with BSIZE, FDIR and BEXP, but a negative relationship with BMEET and MOWN. BCINDE has a positive relationship with Q and BMEET, but a negative relationship with MOWN. The results indicate that an increase in number of independent commissioners may enhance firm performance. In terms of ASIZE, a positive relationship exists with Q, BEXP and BCSIZE. Next, AINDE is negatively correlated with Q, BEXP, BCSIZE and ASIZE. AMEET has a positive relationship with Q, BCSIZE and ASIZE, but is negatively related with AINDE.

Table 5.11 explains the Pearson correlation matrix for non-family controlled companies. BSIZE has a significantly positive relationship with Q and ROE, indicating that a larger board in non-family controlled companies enhances firm performance. For BQUAL, a positive relationship exists with ROE, indicating that board qualification plays an important role in enhancing firm performance. BMEET

has a positive relationship with ROE and BSIZE, indicating that more frequent meetings of the directors increases firm performance.

In terms of FDIR, a negative relationship exists with Tobins' Q, but a positive relationship exists with BQUAL, indicating the positive impact of the number of female directors on qualifications. BEXP has a strong positive correlation with Tobins' Q, ROE, BSIZE, BQUAL and BMEET, indicating that expertise has a strong impact on firm performance, firm size and meeting frequency. MOWN has a positive relationship with BSIZE and BMEET, showing that a manager who has high ownership in a company is interested in more frequent meetings. Next, BCSIZE has a strong positive correlation with BISIZE and BMEET. BCINDE is positively related with Tobins' Q, BQUAL, BMEET and BEXP, but negatively related with BCSIZE. ASIZE has a positive relationship with BCSIZE, BQUAL and BCSIZE. However, AINDE has a negative relationship with BSIZE, BCSIZE and ASIZE. In terms of AMEET, a positive correlation exists with BSIZE, BQUAL, BMEET, FDIR, BCSIZE and ASIZE, but a negative relationship exists with AINDE. These results seem to indicate that regular audit committee meetings may contribute to firm performance.

5.5 Testing for Panel Data

This section presents the results of multicollinearity, the Hausman tests and autocorrelation, which examined whether the results violate the underlying necessary statistical assumptions to proceed. Only when the data passed the appropriate tests, multivariate analyses were utilised for analysing the observations.

5.5.1 Results of Multicollinearity Tests

Table 5.12: *VIF Tests for family and non-family controlled companies*

Variable	FC	NFC
FCF	n.a.	n.a.
BSIZE	2.23	1.88
BQUAL	1.07	1.09
BMEET	1.15	1.27
BEXP	1.50	1.22
FDIR	1.11	1.12
MOWN	1.14	1.08
BCSIZE	1.75	1.57
BCINDE	1.13	1.10
ASIZE	4.38	4.60
AINDE	4.19	4.72
AMEET	1.20	1.15
DEBT	1.19	1.11
FAGE	1.13	1.15
LNFSIZE	1.98	1.68
Variable	FC	NFC
IP	1.40	1.33
TS	1.22	1.32
PROP	1.54	1.44
OTHERS	1.78	1.50

Notes: ALL=Family and non-family controlled companies, FC=Family-controlled, NFC=Non-family controlled, Q=Tobin's Q, ROE=Return On Equity, BSIZE=Board size, BQUAL=Board qualification, BMEET=Board meeting, BEXP=Board expertise, FDIR=Board diversity, MOWN=Managerial ownership, BCSIZE=size of Board of Commissioners, BCINDE=Independence of board commissioners, ASIZE=Audit committee size, AINDE=Audit committee independence, AMEET=Audit committee meeting, DEBT=firm's debt, FAGE=Firm age, LNFSIZE=Firm size, IP=Industrial Products, TS=Trading services, PROP= Properties, OTHERS=Others.

This section examines the VIF for all models (all companies, family and non-family controlled companies). Table 5.12 shows that VIF for all companies ranges from 1.07 to 5.54. The VIF value for family-controlled companies ranges from 1.07 to 4.38 and that in non-family controlled companies ranges from 1.08 to 4.72. Thus, the values of VIF for the two models are found to range from 1.07 to 5.54, which is below the threshold value of 10 (Gujarati, 2003; Hair et al., 2006). Thus, multicollinearity is not likely to affect the regression analysis.

5.5.2 Results of Hausman Tests

Table 5.13
Hausman tests

Panel A: Family-Controlled Companies		
	Q	ROE
$Chi^2(14)$	41.60	12.59
$Prob>chi^2$	0.0001	0.5585
Panel B: Non-family Controlled Companies		
	Q	ROE
$Chi^2(14)$	22.87	23.43
$Prob>chi^2$	0.0624	0.0436

The Hausman test examines if the individual effects are uncorrelated with other regressors in the model. The FEM is a model with fixed effects (FE) that correlate with the explanatory variables, while the REM is a specific case with zero correlation. The purpose of Hausman test is to check the null hypothesis that the coefficients estimated by the efficient RE estimators are the same as the ones estimated by the efficient FE estimators. If the p-value, prob > chi^2, is larger than 0.05, then random effects should be used. However, if the p-value is significant or less than 0.05, then it is better to use FE.

The results in Table 5.13 in Panel A (family-controlled companies) reveal a significant p-value for Tobins' Q (FE), but not for ROE (RE). Next, Panel B (non-family controlled companies) shows a significant p-value for ROE (FE), but not for Tobins' Q (RE).

5.5.3 Results of Autocorrelation

Table 5.14
Durbin-Watson

	FC (Eq. 4.1)	NFC (Eq. 4.2)
Q	1.57	1.01
ROE	1.43	1.84

Notes: FC=Family-controlled, NFC=Non-family controlled, Q=Tobin's Q, ROE=Return on Equity.

Table 5.14 explains that the problem of positive autocorrelation exists. For autocorrelation problem, the assumption is that no autocorrelation problem is present if the REM is chosen (Greene, 2003; Gujarati, 2003).

5.6 Multivariate Analysis

5.6.1 Generalized Least Squares (GLS) Estimation of Family-Controlled Companies: Attributes of the Board of Directors (H_{2a} to H_{7a}), Attributes of the Board of Commissioners (H_{8a} to H_{9a}) and Audit Committee Characteristics (H_{10a} to H_{12a}).

This section discusses the family-controlled companies as sample. Sub-section 5.6.1.1 discusses board of director attributes for family-controlled companies (H_{2a} to H_{7a}), next, sub-section 5.6.1.2 focuses on board of commissioner attributes (H_{8a} to H_{9a}) and sub-section 5.6.1.3 highlights audit committee characteristics (H_{10a} to H_{12a}).

Table 5.15
Regression results for GLS estimation for family-controlled companies (H_{2a} to H_{12a})

			Model A	Model B
	H	Expected Sign	Q (Coefficient)	ROE (Coefficient)
BSIZE	H_{2a}	-	-.0014***	-.0114***
BQUAL	H_{3a}	-	-.0130***	-.0255**
BMEET	H_{4a}	-	.0013**	.0015***
BEXP	H_{5a}	-	-.3985**	-.0236***
FDIR	H_{6a}	-	-.1516**	.0294
MOWN	H_{7a}	+	-1.093**	-.0507**
BCSIZE	H_{8a}	-	-.1165**	-.0222**
BCINDE	H_{9a}	-	.0054	-.2661**
ASIZE	H_{10a}	-	-.3170**	-.0753**
AINDE	H_{11a}	-	-.8260**	-.8348**
AMEET	H_{12a}	-	.0030***	.5414**
DEBT		-	-.1915***	-.0101**
FAGE		+	-.0562***	-.0016***
FSIZE		+	.9777***	.0132
IP		+	.0752***	.0066*
TS		+	.0434**	.0343**
PROP		+	0.0062*	.0003***
OTHERS		+	.0221**	0.0332**
_CONS			.0049**	-.1317***
R^2			81.62	81.35

			Model A	Model B
	H	Expected Sign	Q (Coefficient)	ROE (Coefficient)
Adj. R^2			76.36	72.19
F stats			15.54	14.30
P value			0.00	0.00

Notes: * significant at 0.1 (2 tailed), ** significant at 0.05 (2 tailed), and *** significant at 0.01 (2 tailed). Q=Tobin's Q, ROE=Return on Equity, BSIZE=Board size, BQUAL=Board qualification, BMEET=Board meeting, BEXP=Board expertise, FDIR=Femles on the Board, MOWN=Managerial ownership, BCSIZE=size of Board of Commissioners, BCINDE=Independence of board commissioners, ASIZE=Audit committee size, AINDE=Audit committee independence, AMEET=Audit committee meeting, DEBT=firm's debt, FAGE=Firm age, LNFSIZE=Firm size, IP=Industrial Products, TS=Trading services, PROP= Properties, and OTHERS=Others.

Table 5.15 presents the findings of the relationships between family-controlled companies and firm performance. The results show that board meeting (H_{4a}) and audit committee meeting (H_{12a}) are positively related to firm performance; while board size (H_{2a}), board qualification (H_{3a}), board expertise (H_{5a}), females on the board (H_{6a}), size of board of commissioners (H_{8a}), independent commissioners (H_{9a}), audit committee size (H_{10a}) and audit committee independence (H_{11a}) are negatively related to firm performance. Other hypothesized variables, board meeting (H_{4a}), managerial ownership (H_{7a}) and audit committee meeting (H_{12a}) reveal an opposite direction of what was predicted in this study.

5.6.1.1 The Effect of Board of Director Attributes on Firm Performance for Family-Controlled Companies (H_{2a} to H_{7a})

In this part, the discussion focuses on the board of director attributes in family-controlled companies and their relationship with firm performance. Table 5.16 shows that smaller board size (H_{2a}) enhances the performance of family-controlled

companies as compared to larger board size for Tobin's Q (-.0001***) and ROE (-.0003***). These results are consistent with previous local works (Darmadi, 2012; Itan, 2015) and other overseas studies (Ferris et al., 2003; Haniffa & Hudaib, 2006; Chen et al., 2008; Mishra & Ratti, 2011; Horvath & Spirollari, 2012). Reasons for this relationship are that communication in smaller boards is easier, easier to make decisions and conflicts between shareholders and management can be avoided (Lipton & Lorsch, 1992). Additionally, the stewardship theory suggests that boards become ineffective when they become large. Family-controlled companies tend to save the cost and large boards face difficulty in communicating and coordinating among group members, thus creating conflict because of different opinions among directors. Large boards also do not help the top management to monitor the firm effectively. Furthermore, the structure and membership of boards in family-controlled companies include family members. Thus, smaller boards as compared to larger boards are more able to avoid conflicts among directors when making decisions (Horvath & Spirollari, 2012). Yopie and Itan (2016) claimed that Indonesian family-controlled companies with larger boards do not enhance firm performance. Larger boards can generate more ideas and provide more advice, which make it difficult for managers to achieve a consensus and make correct decisions. Thus, sometimes, complications and conflicts occur; therefore, larger boards inhibit the development of a company. Therefore, hypothesis H_{2a} is supported.

This finding reveals that board qualification (H_{3a}) decreases the performance of family-controlled companies (Q = -.0015***, ROE = .0125**). This study found that when there are more qualified directors sitting on the board, the lower firm performance. The reason behind this finding may be due the effect of the founders,

who have no qualification and eduation, but a very influential men in the companies. Some of the founders in Indonesian-family companies come from China, Malaysia, Singapore and other countries, and stay in Indonesia to build up and started the companies. Most of them are not equipped with high education background, but they can increases the firm performance based on personal experience and skills. Therefore, hypothesis H_{3a} is supported.

The result shows that board meeting (H_{4a}) has a positive relationship with Tobin's Q (.0043**) and ROE (.0097***) in family-controlled companies. Carcello and Neal (2002) found evidence that a high frequency of meetings influences the quality of audits and protects the interests of shareholders. This indicates that board meetings play an important role that includes monitoring of activities that leads to an improvement in the quality of boards. Based on stewardship theory, the frequency meetings between family directors may provide complex solutions, great strategies, new ideas and best management controller in terms of increasing firm performance. If the board of director is lack of skills, knowledge and experience to manage or control a company, a higher frequency of board meetings can reduce the problems. Therefore, high frequency of board meetings may positively and significantly influence family firm performance (Darmadi, 2013). Darmadi (2013), who studied Indonesian companies, claimed that PLCs in Indonesia are in a transitional stage. Presently, because company boards often lack appropriate skills and experience to manage the company, a greater frequency of board meetings may provide the information and knowledge for these directors to enhance firm performance. Therefore, hypothesis H_{4a} is not supported.

Board directors' professional knowledge and expertise (H_{5a}) are negatively related to firm performance (Q = -.0128**, ROE = -.0041**). This finding indicates that higher board expertise may decrease the performance of a family firm. Currently, many of the major owners of Indonesian family-controlled companies are in their second or third generations; thus, some of the directors in Indonesian family-companies have no professional skills and expertise but are very influential in companies. Amran and Che-Ahmad (2011) explained that a fewer number of experts are more suitable for board effectiveness as compared to a high number of experts. The fewer number of experts result in better discussion and faster agreement and quicker decision-making among directors. Directors who are equipped with qualifications and skills might have different wishes for family directors in managing the company. Therefore, it creates conflict that may have influenced the results of this study. Thus, hypothesis H_{5a} is supported.

Female directors (H_{6a}) has a negative relationship with Tobins' Q (-.0376**). The result shows that female directors do not enhance Indonesian family-company performance. Among the reasons why this is so are because many Indonesian family-controlled companies have traditional perceptions about family, in which the successors of company should be the eldest son of the founder (Holliday & Letherby, 1993). Furthermore, the founder of the family-controlled company is often concerned with carrying on the family name. Typically, in Indonesia, a married daughter will adopt her husband's surname and thus the symbolic identity of the company will be effected. Moreover, male directors are expected to be more competitive than female directors (Amran & Che-Ahmad, 2011). Therefore, hypothesis H_{6a} is supported.

In this study, the evidence suggests that a low level of managerial ownership results in increased firm performance. Thus, when family ownership is low, the performance of family companies is enhanced. In Indonesia, ownership of family companies is highly concentrated, and a high family concentration of ownership causes lower firm performance. One reason given for this relationship is that family-controlled companies tend to expropriate funds from non-family shareholders (Singapurwoko, 2013). Family-controlled companies need 15% equity in a listed company to control the firm effectively. Therefore, an effective way to mitigate the managerial ownership problem is when family ownership is low (Amran & Che-Ahmad, 2011). Based on discussion above, hypothesis H_{7a} is not supported.

5.6.1.2 The Effect of Board of Commissioner Attributes on Firm Performance for Family-Controlled Companies (H_{8a} to H_{9a})

This section focuses on the relationship between board of commissioner attributes in family-controlled companies and firm performance. Table 5.16 shows that a smaller board of commissioners (H_{8a}) increases the performance of family-controlled companies for Tobin's Q (-.0489***) and ROE (-.0334**). This finding is consistent with previous studies (Surifah, 2013; Harjito & Singapurwoko, 2014; Itan, 2015). This study provides evidence that more commissioners in family companies will decrease company performance. One reason that has been suggested for this relationship is that a larger board creates difficulties in terms of communication among commissioners (Harjito & Singapurwoko, 2014).

The stewardship theory provides a rationale for this finding. Family directors have a great sense of belonging to the company; thus, family directors exhibit a stronger commitment to the company as compared to commissioners. The expectation is that family directors understand more of the company's inner workings and know the company's operations better than commissioners who are not directly in charge of the daily operations of the company (Surifah, 2013). Further, Itan (2015), in a study of Indonesian companies, found that a larger board of commissioners in Indonesian family-controlled companies has a lower level of alignment between the board and company management and generates potential agency conflicts between principal and agent. Therefore, hypothesis H_{8a} is supported.

This finding reveals that a smaller proportion of independent commissioners (H_{9a}) enhances the performance of family-controlled companies for ROE (-.0197**). Itan (2015) claimed that most Indonesian family-controlled companies dislike employing independent commissioners even though these commissioners could provide knowledge and experience that cannot be found in family directors (Harjito & Singapurwoko, 2014). The reason is that a family director is expected to understand the condition of company better than an outside director, resulting in better decisions that in turn, can increase firm performance (Surifah, 2013). In addition, family directors do not believe that independent commissioners can understand the firm's competitive situation better than family directors (Harjito & Singapurwoko, 2014; Itan, 2015). Furthermore, independent commissioners on the board may be co-opted due to personal relationship of the independent commissioners with the CEO. Independent commissioners who have served and stay for a long time in a company may build a good relationship with management, thus, making it difficult for them to

give an independent judgement (Meng, 2009). Thus, hypothesis H_{9a} is partially supported.

5.6.1.3 The Effect of Audit Committee Characteristics on Firm Performance for Family-Controlled Companies (H_{10a} to H_{12a})

This section focuses on the relationship between audit committee characteristics in family-controlled companies and firm performance. Table 5.16 shows that smaller audit committees (H_{10a}) enhance the performance of family-controlled companies for Tobins' Q (-.0315**) and ROE (-.0402**). This finding supports the results of previous studies (Davidson et al., 2005; Miller & Breton-Miller, 2006). One reason for the relationship is that a larger audit committee may incur higher costs, which does not contribute to firm performance.

The function of an audit committee is to monitor the reliability of the company and ensure cooperation with the legal department (Turley & Zaman, 2007). Family-controlled companies need to spend extra funds, such as salary and bonus expenses for the audit committee. In Indonesian family-controlled companies, the owners have highly concentrated ownership and the power to control the daily operations of companies. Furthermore, based on stewardship theory, family members are act as steward because they have high feel of belonging to companies. Thus, they tend to minimize the agency costs. Because family-controlled companies put most of their wealth in the company, they seek to achieve and increase the benefits of company; therefore, audit committee size is preferably smaller. Thus, hypothesis H_{10a} is supported.

In terms of audit committee independence (H_{11a}), the results are negatively related to firm performance when measured using Tobin's Q (-.0446**) and ROE (-.0361**). The findings are consistent with previous studies (Klein, 2002; Parker & Peters, 2004; Al-Matari et al., 2014). In Indonesian companies, the board of commissioners may promote better firm performance and ensure high shareholders' returns (Klein, 2002). However, some believe that independent commissioners are better monitors of management than inside directors. Independent commissioners are seen as acting in the best interests of shareholders who can influence significant returns. This is particularly true when independent commissioners are members of the audit committee. For instance, Anderson and Reeb (2003) found that audit committee independence brings lower debt for financing costs. Therefore, when the firm needs to expand, the family management is reluctant to have debt; thus, it will affect the firm's value. Therefore, hypothesis H_{11a} is supported.

Audit committee meeting (H_{12a}), has a positive relationship with firm performance for Tobin's Q (.0177**) and ROE (.0276**), showing that a higher frequency of audit meetings may enhance firm performance. Al-Matari et al. (2014) noted that stock prices increase when a company is controlled effectively and audit committee meetings are held regularly. This indicates that audit committee meetings can provide useful information and address problems.

A local study by Hamid et al. (2014) argued that firms with a higher frequency of audit committee meetings can provide more accurate financial reports, monitor the internal controls and identify management risks, which in turn, may lead to increased firm performance. Further, owners of family-controlled companies have power to

control company operations; thus, the family owners may hold meetings and minimize agency costs (Miller & Breton-Miller, 2006). Therefore, hypothesis H_{12a} is not supported in this study.

5.6.1.4 The Effect of Control Variables on the Performance of Family-Controlled Companies

This section examines the relationship of control variables on the performance of family-controlled companies in Indonesia. Debt has a negative relationship with Tobins' Q (-.0000***) and ROE (-.0116**). One reason for this is that family directors put most of their wealth into companies. Family directors are reluctant to use an optimal amount of debt for financing their companies because they consider the company's sustainability and ability to pay off the debt. Therefore, the insufficiency of funds to run the business may affect firm performance.

In terms of firm age, the findings show a negative relationship with Tobins' Q (-.0094***) and ROE (-.0000***). One explanation for this result is that the performance of Indonesian family-controlled companies decreases when the firms become mature in the market. On average, younger firms are likely to achieve better performance than older firms because older firms suffer from routinization of operations, a lack of training and out-of-date information and become more conservative, which may decrease firm performance (Itan, 2015).

Firm size is positively related to Tobin's Q (.0000***). It indicates that larger companies contribute more benefits than smaller companies (Helmich, 1977). When

the size of company is large, family companies have the opportunity to develop and train their top management to face complex problems and come up with the best solutions (Helmich, 1977).

For family-controlled companies, this study finds that industries on the Indonesian Stock Exchange are positively related to firm performance for all performance indicators (Q and ROE). Thus, industries are also sensitive to firm performance indicators.

5.6.2 GLS Estimation of Non-Family Controlled Companies: Board of Director Attributes (H_{2b} to H_{7b}), Board of Commissioner Attributes (H_{8b} to H_{9b}) and Audit Committee Characteristics (H_{10b} to H_{12b}).

This section discusses non-family controlled companies only. Sub-section 5.6.3.1 discusses board of director attributes for non-family controlled companies (H_{2b} to H_{7b}), sub-section 5.6.3.2 focuses on board of commissioner attributes (H_{8b} to H_{9b}) and sub-section 5.6.3.3 highlights audit committee characteristics (H_{10b} to H_{12b}).

Table 5.16
Regression results for GLS estimation for non-family controlled companies (H_{2b} to H_{12b})

			Model A	Model B
	H	Expected Sign	Q (Coefficient)	ROE (Coefficient)
BSIZE	H_{2b}	+	.0304**	.0237**
BQUAL	H_{3b}	+	.7434***	.9962**
BMEET	H_{4b}	+	.0071**	.0094***
BEXP	H_{5b}	+	.8056**	.4094**
FDIR	H_{6b}	+	0.4561***	.0361***
MOWN	H_{7b}	-	1.6147	-.2932
BCSIZE	H_{8b}	+	-.0595**	-.0222**
BCINDE	H_{9b}	+	.7653**	.0149**
ASIZE	H_{10b}	+	-.4397**	-.3956**
AINDE	H_{11b}	+	4.5245**	4.8047
AMEET	H_{12b}	+	.0034**	.0034**
DEBT		-	-.2636***	.2647**
FAGE		+	-.0040	-.0038
FSIZE		+	.6234***	.0026***
IP		+	.0124**	.0414**
TS		+	.0241**	.0614*
PROP		+	.0024***	.0074***
OTHERS		+	.0125**	.0274**
_CONS			.0000***	.1247***
R^2			25.05	31.35

			Model A	Model B
	H	Expected Sign	Q (Coefficient)	ROE (Coefficient)
Adj. R^2			23.52	29.53
F stats			16.35	18.22
P value			0.00	0.00

Notes: * significant at 0.1 (2 tailed), ** significant at 0.05 (2 tailed), and *** significant at 0.01 (2 tailed). Q=Tobin's Q, ROE=Return on Equity, BSIZE=Board size, BQUAL=Board qualification, BMEET=Board meeting, BEXP=Board expertise, FDIR=Female Directors, MOWN=Managerial ownership, BCSIZE=size of Board of Commissioners, BCINDE=Independence of board commissioners, ASIZE=Audit committee size, AINDE=Audit committee independence, AMEET=Audit committee meeting, DEBT=firm's debt, FAGE=Firm age, LNFSIZE=Firm size, IP=Industrial Products, TS=Trading services, PROP= Properties, and OTHERS=Others.

Table 5.16 presents the findings for the relationship between non-family controlled companies and firm performance. The results show that board size (H_{2b}), board qualification (H_{3b}), board meeting (H_{4b}), board expertise (H_{5b}), female directors (H_{6b}), independent commissioners (H_{9b}), audit committee independence (H_{11b}) and audit committee meeting (H_{12b}) are positively related to firm performance; while size of board of commissioners (H_{8b}) and audit committee size (H_{10b}) reveal an opposite direction to what was predicted in this study. The other hypothesis on managerial ownership (H_{7b}) has no significance with firm performance, and thus is not supported in this study.

5.6.2.1 The Effect of Board of Director Attributes on Firm Performance for Non-Family Controlled Companies (H_{2b} to H_{7b})

This section focuses on the relationship between board of director attributes in non-family controlled companies and firm performance. With reference to Table 5.17, board size (H_{2b}) is positively related with Tobins' Q (.0472**) and ROE (.0146**).

These results are consistent with previous local studies (Darmadi, 2013; Surifah, 2013) and other country studies (Ferris et al., 2003; Zainal et al., 2009; Chen & Nowland, 2010). Studies have claimed that larger boards in non-family controlled companies may increase firm performance. Some believe that a large board in a company can provide more resources and has a higher problem-solving capability (Darmadi, 2012). The rationale is that large boards provide more skills, knowledge, strategy and experience during shareholders' meeting (Zainal et al., 2009; Surifah, 2013). Thus, large boards appear to be more effective as compared to small boards. Based on the discussion above, hypothesis H_{2b} is supported in this study.

In terms of board qualification, directors with a degree qualification (H_{3b}) have a positive relationship with all indicators of firm performance (Q = .0049***, ROE = .0435**). The findings indicate that high educational background and skills are needed to enhance firm performance. Based on agency theory, a company needs educated directors' to manage and control the operation of company, so that it can maximise the firm value and align the interest between principals and agents. Amran and Che-Ahmad (2011) claimed that directors who are well-educated are better able to understand financial matters, set strategy, and control management. Previous studies have suggested (Yasser, 2011) that a director who has better education can provide creative solutions and guidance to solve complex problems (Hamid et al., 2014). Thus, companies have advantage when they have educated directors on the board. Therefore, hypothesis H_{3b} is supported.

The findings show that board meeting (H_{4b}) has a positive relationship with Tobins' Q (.0191**) and ROE (.0447**) in non-family controlled companies. In this finding, the

current study aligns with previous researchers (Yasser, 2011; Horvath & Spirollar, 2012; Surifah, 2013; Darmadi, 2013; Harjito & Singapurwoko, 2014). The results indicate that a low frequency of board meetings exhibits the lowest price-to-book value. This may be due to a lack of communication among directors, and a higher frequency of board meetings can resolve this issue, thus enhancing firm performance (Yasser, 2011). Based on the agency theory, the frequency of board meetings may be used to measure the effectiveness of board activity (Vafeas, 1999); therefore, a high frequency of board meetings is seen as a mechanism to protect the interests of shareholders, share ideas and help improve company profits (Byrne, 1996; Darmadi, 2013). Thus, hypothesis H_{4b} is supported in this study.

Board expertise (H_{5b}) is found to increase firm performance in this current study, using Tobin's Q (.0456**) and ROE (.0367**). Amran and Che-Ahmad (2011) found that board expertise contributes to helping companies to set strategies, increase board effectiveness and provide innovative ideas, thus enhancing performance. In short, Indonesian companies need directors who have expertise, skills and knowledge to monitor and manage the daily business. Furthermore, board expertise may reduce the conflicts between major shareholders and minor shareholders in terms of making complex decision and strategies. Therefore, hypothesis H_{5b} is supported.

Female directors (H_{6b}) has a positive relationship with Tobin's Q (.0014***), and ROE (.0031***). The finding is consistent with past studies (Carter et al., 2003; Bonn, 2004; Smith et al., 2006; Majdalani et al., 2014). Several reasons exist for this relationship. Among them is that female directors have more market knowledge and project a better image and perception when communicating with customers (Smith,

2006; Majdalani et al., 2014). From agency theory perspective, female directors seem to be more successful in gaining support and commitment of customers and employees in the company (Majdalani et al., 2014), thus, increasing firm performance. Another reason why the number of female directors is positive and significant with firm performance is that the number of female directors is increasing from year to year in Indonesia. Although currently, more male directors serve on boards than female directors, female directors can provide opinions, skills and perceptions in terms of firm performance. Therefore, hypothesis H_{6b} is supported.

For non-family managerial ownership (H_{7b}), the results show that managerial ownership does not significantly influence firm performance. The hypothesis in this study posited a negative relationship; however, the results fail to find any relationship between non-family managerial ownership and firm performance. This lack of a relationship may exist because the ownership structure differs across firms, including differences in the firms, the scale of economics, regulations and the environment in which they operate (Demsetz & Villalonga, 2001). Therefore, hypothesis H_{7b} is not supported.

5.6.2.2 The Effect of Board of Commissioner Attributes on Firm Performance for Non-Family Controlled Companies (H_{8b} to H_{9b})

This section focuses on the relationship between board of commissioner attributes in non-family controlled companies and firm performance. Table 5.17 shows that smaller board of commissioners (H_{8b}) enhances the performance of non-family controlled companies for Tobin's Q (-.0383**) and ROE (-.0143**). This study

provides evidence that a large board of commissioners in non-family controlled companies decreases the performance of the companies. In previous studies on Indonesia, Harjito and Singapurwoko (2014) and Itan (2015) claimed that smaller board of commissioners contributes to the alignment of the interests of shareholders and managers. Further, a larger board of commissioners may produce agency conflicts between majority and minority shareholders.

In non-family controlled companies, the directors should be more independent because the board contains no family members who might influence the board. However, the results of this study contradict this hypothesis. Based on agency theory perspective, one of the reason why a larger board of commissioners might decrease firm performances is that larger board commissioners decreases the effectiveness of the company because a large number would make it difficult to carry out the board's duties and included reasons such as difficulty in communication and coordination among commissioners, and the members of the board of commissioners who stay for a long time in a company might have built a personal relationship with managers. So, they may have difficulty in giving independent judgement when making decisions. Additionally, some of the commissioners may not be experienced, and they have no feel for business activities. Therefore, a large board of commissioners could destroy firm performance. Hence, hypothesis H_{8b} is not supported in this study.

In terms of independent commissioners, the result reveals that a larger proportion of independent commissioners (H_{9b}) increases the performance of non-family controlled companies (Q =.0212**, ROE =.0145**). Singapurwoko's (2013) study of Indonesian companies predicted that the number of independent commissioners in

Indonesian non-family controlled companies is likely to be higher than in family-controlled companies because they believe that an independent commissioner can provide diverse expertise, knowledge, experience, independent opinions and ideas for companies. Further, a larger number of independent commissioners in Indonesian companies could increase the corporate governance level (Saragih et al., 2012). From the corporate governance perspective, an independent commissioner is responsible to supervise and be a watchdog of board activity. An independent commissioner can increase shareholder value, and has the knowledge to provide independent judgement on strategy and performance (NCG, 2006). Therefore, hypothesis H_{9b} is supported in this study.

5.6.2.3 The Effect of Audit Committee Characteristics on Firm Performance for Non-Family Controlled Companies (H_{10b} to H_{12b})

This part focuses on the relationship between audit committee characteristics in non-family controlled companies and firm performance. Table 5.17 shows that audit committee size (H_{10b}) is negatively related to non-family controlled firm performance. This finding indicates that a smaller audit committee enhances the performance of non-family controlled companies for Tobin's Q (-.0357**) and ROE (-.0438**). The results in this study contradict what was hypothesised. Too many independent directors are on the boards leading to inefficient governance and increasing expenses (Bansal & Kharma, 2016). Hence, a larger audit committee can have a negative relationship with firm performance. Therefore, hypothesis H_{10b} is not supported.

Audit committee independence is found to be positively related with all indicators of firm performance (Q = .0407**). The result reveals that a larger number of independent audit committee members enhance firm performance. In Indonesia, the audit committee is viewed as an important mechanism of corporate governance. That is because a more independent audit committee is better able to handle various monitoring processes and keep an eye on managers. Further, a more independent audit committee may ensure the reliability of the financial statement reporting process by checking on any manipulative actions of managers (Bansal & Kharma, 2016). Yasser (2011) mentioned that audit committee independence improves the quality of audit reports and increases firm performance. Therefore, hypothesis H_{11b} is partially supported.

For audit committee meeting (H_{12b}), the finding shows that high frequency of audit committee meetings has a positive relationship with Tobins' Q (.0218**) and ROE (.0410**). Regular and frequent audit committee meetings can help a company to minimize agency problems and reduce information asymmetry by providing transparent, timely and fair information to investors (Al-Mamun, 2014; Hamid et al., 2014; Al-Matari et al., 2014; Bansal & Kharma, 2016). Bansal and Kharma (2016) suggested that a company in which the audit committee meets more frequently is likely to safeguard the bests interests of its investors, thus, enhancing firm performance. Hence, hypothesis H_{12b} is supported.

5.6.2.4 The Effect of Control Variables on the Performance of Non-Family Controlled Companies

Table 5.16 shows that debt is negatively related to Tobin's Q (-.0000***) but positively related with ROE (.0312**). In Indonesian non-family controlled companies, debt is one way to raise capital. One reason for this negative relationship is that directors in non-family controlled companies are reluctant to use the optimal amount of debt to fund their companies because they consider debt to increase the risk of bankruptcy (Itan, 2015).

Firm size is positively related with all indicators of firm performance (Q = .0003***, ROE = .0467**). This indicates that larger companies generate more profits; thus, firm performance is enhanced (Lehn et al., 2004). In terms of industries, this study finds that industries are also positively related with all indicators of firm performance with Tobin's Q and ROE. Meanwhile, each industry is capable of influencing firm performance (Haniffa & Hudaib, 2006).

5.7 Conclusion

This section presents the results for panel data by checking for outliers, looking for multicollinearity, heteroscedasticity, autocorrelation and performing the Hausman test. This study developed two equations for different samples (family-controlled companies and non-family controlled companies). This is followed by the descriptive statistics, univariate tests and multivariate analyses and a discussion of these results.

The results show that family-controlled companies perform better than non-family controlled companies. Next, family-controlled companies with smaller board size are associated with better firm performance. However, a larger board size in non-family controlled companies contributes to firm performance which could be because they provide knowledge and skills that cannot be found among family directors. Board meetings are found to be positively related to firm performance for both family and non-family controlled companies. Next, board qualification and board expertise are negatively and significantly related with respect to firm performance for family-controlled companies, but positively related with non-family owned companies. Female directors are seen to contribute value to non-family controlled companies, but not to family-controlled companies. Managerial ownership is found to be insignificant with respect to non-family controlled companies, but negatively and significantly related to family-controlled companies.

In terms of board of commissioner attributes, a smaller board of commissioners enhances firm performance for family-controlled firms and non-family controlled firms. For independent commissioners, a higher proportion of independent commissioners contributes to firm performance for non-family controlled companies, but is significantly and negatively related to firm performance for family-controlled companies.

With respect to audit committee characteristics, a smaller audit committee is seen as being likely to enhance firm performance for both family and non-family controlled companies. A higher proportion of audit committee independence helps enhance the reliability of the financial statement reporting process, thus, increasing the firm

performance for non-family controlled companies, but not for family-controlled companies. Last, a high frequency of audit committee meetings in non-family controlled companies is found to impact firm performance and help the companies to minimize information asymmetry and agency problem by providing transparency and fair information to investors.

CHAPTER 6

CONCLUSION AND RECOMENDATIONS

6.1 Overview of the Chapter

This chapter draws conclusions from the results presented in Chapter 5 and provides some recommendations for the regulatory bodies and interested parties to consider. This chapter comprises five sections. Section 6.2 summarizes the results from the two main equations in this study. Next, Section 6.3 reports the implications of the study. Section 6.4 highlights the limitations of the study and suggestions for future research. Finally, Section 6.5 concludes the study.

6.2 Summary of the Study

The findings show that family-controlled firms perform better than non-family controlled companies. Therefore, hypothesis H_1 is supported in this study. The findings indicate that family-controlled companies have higher firm performance, which occur for the following reasons: first, family directors have strong feeling for or sense of belonging to their companies because these directors have used their own pocket money to establish and grow the companies. Thus, these family directors will put full effort and sacrifice to enhance firm performance than directors in non-family controlled firms; second, family-controlled firms seek to repay the hard work of family directors. Hence, family-controlled companies pay higher dividends when they achieve higher performance, which will go back into the pockets of family members; and third, family companies are concerned with the sustainability of companies. Family-controlled companies tend to generate high profits so that the business can be

passed to the next generation. Therefore, this study has achieved Research Objective 1, which is to determine if Indonesian family-controlled firms have higher firm performance than non-family controlled firms.

Research Objective 2 focuses on the impact of board of director attributes on firm performance for variables of board size (H_{2a}, H_{2b}), board qualifications (H_{3a}, H_{3b}), board meeting (H_{4a}, H_{4b}), board expertise (H_{5a}, H_{5b}), female directors (H_{6a}, H_{6b}) and managerial ownership (H_{7a}, H_{7b}). The results of this study support hypotheses H_{2a}, H_{2b} for board size, H_{3a}, H_{3b} for board qualifications, H_{4a}, H_{4b} for board meeting, H_{5b} for board expertise and H_{6b} for female directors.

Board size (BSIZE) is positively related to firm performance for non-family controlled companies. The results demonstrate that larger board size leads to to better firm performance. This might occur for several reasons: first, a larger size of board of directors may increase the pool of expertise, increase the range of perspectives and provide potential strategies and networking; and second, a larger board increases the ability to monitor the actions of top management, make critical judgements to correct errors and subsequently motivate corporate players to perform their work more efficiently in order to increase shareholders' value.

For the second group, which is family-controlled companies, board size negatively and significantly influences firm performance. The findings show the smaller board size in family-controlled companies is associated with better performance. The reasons behind this finding is that members of a small board can communicate easily, make decisions and avoid conflicts between shareholders and management. The

second explanation as to why Indonesian family-controlled firms with smaller boards have higher and better performance may be because sometimes, larger board have more ideas and more advice, which make it difficult for managers to choose the right decisions. A third explanation might be family-controlled firms revolve around family culture. Therefore, H_{2a} and H_{2b} are supported.

In terms of board qualifications (BQUAL), this study found it is negatively related with firm performance for family-controlled companies. The reason is that the effect of the founder board qualification influences the results. Most of the founders have low education and no qualified degree background. Education is known as an important element for firms' performance, but yet it is neglected in family-controlled companies in Indonesia. Thus, further research should pursue on this matter. However, for non-family controlled companies, the results reveal that a significantly positive relationship exists with the firm performance for non-family controlled firms. The findings show that more qualified board members in a company is associated with better firm performance for non-family controlled companies. Thus, H_{3a} and H_{3b} are supported. The results suggest that both family-controlled and non-family controlled firms should have directors who are equipped with higher education qualifications and skills. It is to ensure that the boards engage in better decision-making and are more capable of controlling the companies. This suggests that directors who are well-educated can better understand financial matters, set strategy, control management and provide creative solutions to solve complex problems.

Interestingly, when board meeting (BMEET) was tested against firm performance, the findings show a positive and significant relationship with performance for family-

controlled and non-family controlled companies. The results reveal that a higher frequency of board meetings is associated with better performance. Among the reasons for this is that a greater frequency of board meetings may provide the opportunity to better share information and knowledge to enhance firm performance. Furthermore, a higher frequency of board meetings may be related to improved protection of shareholders interest, the exchange of ideas and views, helping board of directors who lack skills, knowledge and experience to manage the company effectively and reducing agency problems. Thus, H_{4b} is supported, but not H_{4a}.

Board expertise (BEXP) has a negative relationship with performance for family-controlled firms (H_{5a}). A reason behind this may be that the professional backgrounds of founders influence the relationship. Most founders have low professional skills and expertise in this field but are very influential and respected in the companies. Some of the founders in Indonesian companies do not focus on expertise of directors, especially in family-controlled firms, and are perhaps, more interested in soft skills essentially in family relationships. These founders are employed based on family members' relationship rather than talent. However, for non-family controlled companies, the study reveals a positively significant relationship between board expertise and firm performance. Hence, H_{5a} and H_{5b} are supported. Professional directors contribute by helping the companies in setting strategies, improving board effectiveness and providing innovative ideas. Thus, these professional directors add value to the company by enhancing firm performance.

In terms of female directors (FDIR), the findings show mixed results. A higher number of female directors has a significantly positive influence on firm performance

for non-family controlled firms. One reason for this relationship is that female directors bring benefits to companies in terms of marketing knowledge to help the board make better decisions, provide different perceptions and create a better image when communicating with customers that lead to the enhancement of firm performance.

However, the findings reveal a negative and significant influence of female directors on firm performance for family-controlled companies. The reason behind this finding may be that Indonesian family-controlled companies still abide by traditional perceptions in which the male is the most important figure and the successor should be the eldest son. Furthermore, family-controlled companies are more concerned with passing on the family name, which a married daughter is unable to do. That is because a married daughter will adopt her husband's surname, and the symbolic identity of company would be effected and decrease firm performance. Thus, H_{6a} and H_{6b} are supported in this study.

Remarkably, the findings show a negative and significant relationship between managerial ownership (MOWN) and firm performance for family-controlled companies. For non-family controlled companies, the results are not significant (H_{7b}). The reasons are that higher amount of ownership held by managers will motivate managers to put more effort in managing the company; hence, firm performance will increase. However, when the managers have very great control of the company, the managers will be discouraged from maximizing the benefits for shareholders at large. This creates an agency problem (Type II), in which managerial owners would be more

concerned with their personal interests rather than those of outside shareholders, thus, decreasing firm performance. Thus, H_{7a} and H_{7b} are not supported in this study.

Next, Research Objective 3 is on the examination of the attributes of the board of commissioners and their relationship with firm performance for size of board of commissioners (H_{8a}, H_{8b}) and independent commissioners (H_{9a}, H_{9b}). The results are related to hypotheses H_{8a} for size of board commissioners and H_{9a} and H_{9b} for independent commissioners.

In terms of size of board of commissioners (BCSIZE), the results reveal a negative and significant relationship between BCSIZE and firm performance for family-controlled and non-family controlled companies. Thus, a larger-sized board of commissioners causes firm performance to decline. Among the reasons for this relationship are that boards of commissioners in Indonesia are still weak in performing their governance function. They find it is difficult to carry out their duties, including barriers in communication among commissioners and lack of authority and knowledge of the firm. Another explanation why a larger board of commissioners might decrease firm performance is members of the board of commissioners who stay for a long time in a company might develop personal relationships with the CEO, making it difficult for them to retain their independence. Therefore, H_{8a} is supported in this study, but not $H_{8b.}$

Independent commissioners (BCINDE) are significantly and positively related to firm performance for non-family controlled firms. The result shows that a larger number of independent commissioners may lead to better firm performance. The reasons for this

association are several. The greater the number of independent commissioners, the better the supervision and the ability of the board to act as watchdog for board activity, increase shareholder value and provide independent judgement on strategy.

However, for family-controlled companies, the results show that a lower number of independent commissioners is negatively and significantly related to firm performance. This seems to suggest that these companies need more independent commissioners to improve performance. The reasons for a smaller number of independent commissioners in Indonesia are several. In Indonesia, although some companies have selected independent commissioners in accordance with the criteria for the position, these companies still do not meet the minimal compliance requirements of 30% and some of the independent commissioners might not be actually independent. Another explanation as to why Indonesian family-controlled companies have a smaller number of independent commissioners may be because family directors do not believe that independent commissioners can understand the firm's operations and the family directors. Therefore, H_{9a} and H_{9b} are supported.

Research Objective 4 relates to audit committee characteristics and firm performance for variables of audit committee size (H_{10a}, H_{10b}), audit committee independence (H_{11a}, H_{11b}) and frequency of audit committee meetings (H_{12a}, H_{12b}). The results of this study support hypotheses H_{10a} for audit committee size, H_{11a}, H_{11b} for audit committee independence and H_{12a}, H_{12b} for audit committee meeting.

Audit committee size (ASIZE) has a negative and significant relationship with firm performance for family-controlled and non-family controlled firms. The results

indicate that smaller audit committees enhance firm performance. Perhaps, a smaller audit committee can lead to efficient governance and has low expenses associated with it. Furthermore, perhaps a large audit committee is not favored because companies believe that there are already enough independent commissioners on the board. Therefore, H_{10a} is supported in this study, but not H_{10b}.

In terms of audit committee independence (AINDE), the findings are mixed. The study reveals that a positively significant influence exists between audit committee independence and firm performance for non-family controlled firms. Reasons for this may be that audit committee independence may increase the reliability of the financial reporting process by its being able to check for any manipulative activities of the board and handle various monitoring processes on board activity. Therefore, H_{11b} is supported.

However, when the relationship between audit committee independence and firm performance was tested for family-controlled companies, a negative and significant association is found. One argument is that the presence of independent audit committee members may not be sufficient for the audit committee to carry out its monitoring roles. Furthermore, audit committee independence are likely to seek a decrease in the level debt and effect cash flows just when companies need to expand. Therefore, H_{11a} is supported in this study.

The findings reveal a positive relationship between the frequency of audit committee meetings and firm performance for family-controlled and non-family controlled companies. Therefore, H_{12b} is supported in this study, but not H_{12a}. The reasons may

be that higher frequency of audit committee meetings help a company to issue more transparent accounting reports, monitor internal controls and identify management risks. Further, to pursue their functions, the audit committee should hold regular meetings with external auditors to review financial reports, the audit process and the internal controls of the company.

6.3 Implications of the Study

This study discusses theoretical and practical implications in the following sections.

6.3.1 Theoretical Implications

This study reveals the relationship between board of director attributes, board of commissioner attributes and audit committee characteristics and firm performance. Further, this study includes two new variables (board expertise and unaffiliated directors) for board director attributes. Moreover, this study provides more evidence on family-controlled and non-family controlled firms based on Indonesian companies.

From the perspective of the agency theory, the relationship between principals and agents is interesting in Indonesian companies. The majority of Indonesian companies are family-controlled companies in which the primary owner of the company acts as both the principal and agent; hence, the separation of ownership and control is blurred. This may create agency problem because of the owners' involvement (Type II agency problem).

In fact, the stewardship theory is more applicable to family-controlled companies in this study. The rationale is that the owner acts as the steward for the company. Thus, the owner/steward works hard for the interests of company and neglects his or her

own personal interests. This scenario is clearly seen in the case of family-controlled companies, whereby the family directors spent great effort for the company, they are more concerned on the sustainability of their companies for the next generation and the success of the companies is the pride of the families.

This study also examined the relationship between managerial ownership and firm performance in the Indonesian context. This study finds that family-ownership structure, which is typical in Indonesia, is negatively related to performance. Thus, the findings in the Indonesian context are not the same as in Western countries. These negative results may be because Indonesian companies are mostly family-controlled companies; thus, the family ownership structure highly influences managerial ownership. Another reason may be due to ethnic diversity with different cultures, beliefs and practices. There are four main ethnic groups in Indonesia: Melayu, Chinese, Java and Batak. However, Chinese have a strong monopoly in business as compared to the other ethnic groups. Chinese businesses are more oriented towards family-controlled companies and the families act as major shareholders in a company. Therefore, the managerial ownership is more concentrated, which indirectly influences most businesses in Indonesia.

6.3.2 Practical Implications

This study contributes to companies and shareholders in Indonesia in several ways: first, the findings of this study contribute valuable potential sources for the public, investors and stakeholders, in general, which will help them to know and understand the characteristics of family-controlled and non-family controlled firms, the role of corporate governance mechanisms (board of director attributes, board of commissioner attributes and audit committee characteristics) with respect to firm

performance. The reason is that the characteristics between these two groups are similar in terms board qualification, board meeting, female on board and board expertise. However, they are different in terms of board size and managerial ownership.

Next, most companies comply with The Code based on the data from this study. However, there are still some companies which do not follow the rules, especially concerning board of commissioner and audit committee. These findings indicate that, in general, companies in Indonesia comply with The Code. However, companies that show higher firm performance are seen to comply with The Code at a minimum level, and these companies prefer to use their existing practices where given the choice by The Code. For examples, family-controlled companies with small size of audit committee independent show better firm performance than large size of audit committee independent in non-family controlled companies. It may not be appropriate for regulators to advise non-family controlled companies to follow the same set of corporate governance guidelines as family-controlled companies. Certain requirements on family-controlled companies should be reviewed because the behaviour of family business is different from other companies. For example, small board size may make decision quickly and minimize the conflict between principal and agent. Therefore, family-controlled companies with small board size have better performance because decision making is prompt and resolute.

Third, the finding highlights the ways to safeguard the interests of stakeholders by appointing independent commissioners. The companies should have an independent body for selecting and appointing independent commissioners from this pool. Any

independent commissioner who is qualified may register with this independent body and subsequently be chosen from this pool. PLCs that need an independent commissioner can contact the regulatory body and make a selection. Therefore, this process would create a pool of independent commissioners with skills and knowledge in specific areas that can provide the required qualities of independent commissioners for the PLCs, including family-controlled firms.

Lastly, this study contributes to managers who need to pay attention to how board governance attributes in different managerial ownerships influence firm performance. Attending to these board governance attributes would allow managers to choose appropriate ways for dealing with a board of directors and board of commissioners. However, it should be noted that the benefits of enhancing firm performance through increased board governance are not the same across all companies.

6.4 Limitations of the Study and Future Research

This study has limitations in terms of data and methodology. The specific limitations of this study are as follows: first, this study attempts to examine the Indonesian Stock Exchange for family-controlled and non-family controlled firms but excludes financial firms. The Indonesian data provides richer understanding to this research, but care should be taken in generalising the results to other countries because of different regulations, practice, and economic factors. The Indonesian capital market differs from international markets in terms of size, number of listed firms, and market valuation. However, the findings and policy implications of this study can be extended to other economics where there are similar characteristics of corporate governance. The study separates the analysis of relationship between corporate

governance and firm performance for both family and non-family controlled companies because of the different business styles which family companies are likely to be managed by family-founder, while non-family companies prefer to appoint the expert directors.

Second, the study used only 262 companies as the sample for a five-year period because some companies had insufficient information and data. To enhance the generalizability of the results, future researchers can include small and medium enterprises (SMEs) as the sample of study.

Third, the ICMC (Bapepam) does not provide guidelines on how to determine that a firm is a family-controlled company. Thus, the definition of family-controlled company was created based on previous studies using a 20% cut-off level of outstanding equity stake in the hands of family directors as the measurement. This current study uses a family director or a group of family members which have minimum ownership 20% in the Indonesian setting. Moreover, based on Indonesian Capital Market Law, Article (1) 1995, a family director who holds at least 20% shareholding of a company is a substantial shareholder.

Fourth, this study used panel data approach, which is powerful in analysing longitudinal data. However, some individual data may not be captured in the model for market-based research. Perhaps, a better research instrument might capture some observations. Future research may consider primary data (questionnaire approach) to explore the issue from another perspective; and lastly, this study only examined managerial ownership. Therefore, future studies may consider examining other

ownership structures that impact firm performance, including institutional ownership, government ownership and blockholding, all of which could affect firm performance. Future research may also consider examining other board of commissioner attributes and audit committee characteristics, such as the expertise of board of commissioners, qualifications of the board of commissioners, tenure of the board of commissioners, audit committee expertise and audit committee education.

Lastly, research on the concepts and values of Syariah (Islamic) corporate governance is lacking. With respect to research insight, it might be interesting to explore the concepts of Syariah corporate governance practice in Indonesian companies.

6.5 Conclusion of the Study

This study examines the impact of corporate governance mechanisms (board of director attributes, board of commissioner attributes and audit committee characteristics) on firm performance among Indonesian PLCs. This study contributes to the understanding of the impact on the performance of family-controlled and non-family controlled businesses in Indonesia. The findings provide evidence that the Indonesian culture is unique, with a preponderance for family-controlled companies which is not similar to Western companies.

In Indonesian family companies, the directors are the stewards and directors manage the firms for the interests of stakeholders, including themselves. Thus, the stewardship theory is applicable in Indonesian companies. Although Indonesian companies have implemented corporate governance mechanisms, however, they still have room for improvements to strengthen the Indonesian corporate governance standards.

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APPENDIX A: List of the sample of Indonesian family and non-family controlled companies

APPENDIX A1: List of Indonesian non-family controlled companies

No	Code	Name of Company	Industry
1	AALI	Astra Agro Lestari Tbk.	Plantation
2	ADES	Akasha Wira International Tbk.	Industrial Product
3	AKKU	Alam Karya Unggul Tbk.	Others
4	ALKA	Alakasa Industrindo Tbk	Others
5	AMFG	Asahimas Flat Glass Tbk.	Others
6	AMRT	Sumber Alfaria Trijaya Tbk.	Trading, Service
7	ASGR	Astra Graphia Tbk.	Trading, Service
8	ASIA	Asia Natural Resources Tbk	Trading, Service
9	ASII	Astra International Tbk.	Others
10	ATPK	ATPK Resources Tbk.	Mining
11	AUTO	Astra Otoparts Tbk.	Others
12	BAYU	Bayu Buana Tbk	Trading, Service
13	BCIP	Bumi Citra Permai Tbk.	Properties
14	BIPP	Bhuwanatala Indah Permai Tbk.	Properties
15	BKSL	Sentul City Tbk.	Properties
16	BMSR	Bintang Mitra Semestaraya Tbk	Trading, Service
17	BMTR	Global Mediacom Tbk.	Trading, Service
18	BNBR	Bakrie & Brothers Tbk	Trading, Service
19	BRAM	Indo Kordsa Tbk.	Others
20	BRPT	Barito Pacific Tbk.	Others

No	Code	Name of Company	Industry
21	BTON	Betonjaya Manunggal Tbk.	Others
22	BUMI	Bumi Resources Tbk.	Mining
23	BWPT	BW Plantation Tbk.	Plantation
24	BYAN	Bayan Resources Tbk.	Mining
25	CEKA	Wilmar Cahaya Indonesia Tbk.	Industrial Product
26	CITA	Cita Mineral Investindo Tbk.	Mining
27	CKRA	Cakra Mineral Tbk.	Mining
28	CLPI	Colorpak Indonesia Tbk.	Trading, Service
29	CNTX	Century Textile Industry Tbk.	Others
30	CTBN	Citra Tubindo Tbk.	Others
31	CTRP	Ciputra Property Tbk.	Properties
32	CTRS	Ciputra Surya Tbk.	Properties
33	DART	Duta Anggada Realty Tbk.	Properties
34	DEWA	Darma Henwa Tbk	Mining
35	DILD	Intiland Development Tbk.	Properties
36	DKFT	Central Omega Resources Tbk.	Mining
37	DLTA	Delta Djakarta Tbk.	Industrial Product
38	DOID	Delta Dunia Makmur Tbk.	Mining
39	DSSA	Dian Swastatika Sentosa Tbk	Trading, Service
40	DVLA	Darya-Varia Laboratoria Tbk.	Industrial Product
41	ENRG	Energi Mega Persada Tbk.	Mining
42	EPMT	Enseval Putera Megatrading Tbk	Trading, Service
43	ERTX	Eratex Djaja Tbk.	Others

No	Code	Name of Company	Industry
44	ETWA	Eterindo Wahanatama Tbk	Others
45	EXCL	XL Axiata Tbk.	Transportation, Infrastructure
46	FORU	Fortune Indonesia Tbk	Trading, Service
47	FPNI	Lotte Chemical Titan Tbk.	Others
48	FREN	Smartfren Telecom Tbk.	Transportation, Infrastructure
49	GDST	Gunawan Dianjaya Steel Tbk.	Others
50	GDYR	Goodyear Indonesia Tbk.	Others
51	GJTL	Gajah Tunggal Tbk.	Others
52	GMCW	Grahamas Citrawisata Tbk.	Trading, Service
53	GTBO	Garda Tujuh Buana Tbk	Mining
54	GZCO	Gozco Plantations Tbk.	Plantation
55	HDTX	Panasia Indo Resources Tbk.	Others
56	HERO	Hero Supermarket Tbk.	Trading, Service
57	HEXA	Hexindo Adiperkasa Tbk.	Trading, Service
58	ICON	Island Concepts Indonesia Tbk.	Trading, Service
59	IGAR	Champion Pacific Indonesia Tbk	Others
60	IKBI	Sumi Indo Kabel Tbk.	Others
61	INAF	Indofarma Tbk.	Industrial Product
62	INCO	Vale Indonesia Tbk.	Mining
63	INDF	Indofood Sukses Makmur Tbk.	Industrial Product
64	INDX	Tanah Laut Tbk	Transportation, Infrastructure
65	INPP	Indonesian Paradise Property T	Trading, Service
66	INRU	Toba Pulp Lestari Tbk.	Others

No	Code	Name of Company	Industry
67	INTA	Intraco Penta Tbk.	Trading, Service
68	INTD	Inter Delta Tbk	Trading, Service
69	INTP	Indocement Tunggal Prakasa Tbk	Others
70	INVS	Inovisi Infracom Tbk.	Transportation, Infrastructure
71	ISAT	Indosat Tbk.	Transportation, Infrastructure
72	ITMA	Sumber Energi Andalan Tbk.	Trading, Service
73	ITMG	Indo Tambangraya Megah Tbk.	Mining
74	ITTG	Leo Investments Tbk.	Trading, Service
75	JPFA	Japfa Comfeed Indonesia Tbk.	Others
76	JPRS	Jaya Pari Steel Tbk	Others
77	KARW	ICTSI Jasa Prima Tbk.	Transportation, Infrastructure
78	KBLI	KMI Wire & Cable Tbk.	Others
79	KBLV	First Media Tbk.	Trading, Service
80	KIAS	Keramika Indonesia Assosiasi T	Others
81	KKGI	Resource Alam Indonesia Tbk.	Mining
82	KOIN	Kokoh Inti Arebama Tbk	Trading, Service
83	KPIG	MNC Land Tbk.	Trading, Service
84	LAPD	Leyand International Tbk.	Transportation, Infrastructure
85	LION	Lion Metal Works Tbk.	Others
86	LMAS	Limas Centric Indonesia Tbk	Trading, Service
87	LMSH	Lionmesh Prima Tbk.	Others
88	LPIN	Multi Prima Sejahtera Tbk	Others
89	LPLI	Star Pacific Tbk	Trading, Service

No	Code	Name of Company	Industry
90	LPPF	Matahari Department Store Tbk.	Trading, Service
91	LSIP	PP London Sumatra Indonesia Tb	Plantation
92	MAIN	Malindo Feedmill Tbk.	Others
93	MAMI	Mas Murni Indonesia Tbk	Trading, Service
94	MEDC	Medco Energi International Tbk	Mining
95	MERK	Merck Tbk.	Industrial Product
96	MITI	Mitra Investindo Tbk.	Mining
97	MKPI	Metropolitan Kentjana Tbk.	Properties
98	MLBI	Multi Bintang Indonesia Tbk.	Industrial Product
99	MLPL	Multipolar Tbk.	Trading, Service
100	MNCN	Media Nusantara Citra Tbk.	Trading, Service
101	MPPA	Matahari Putra Prima Tbk.	Trading, Service
102	MTDL	Metrodata Electronics Tbk.	Trading, Service
103	MYOH	Samindo Resources Tbk.	Mining
104	MYTX	Apac Citra Centertex Tbk	Others
105	NIKL	Pelat Timah Nusantara Tbk.	Others
106	OMRE	Indonesia Prima Property Tbk	Properties
107	PGAS	Perusahaan Gas Negara (Persero	Transportation, Infrastructure
108	PICO	Pelangi Indah Canindo Tbk	Others
109	PLAS	Polaris Investama Tbk	Trading, Service
110	PLIN	Plaza Indonesia Realty Tbk.	Properties
111	POOL	Pool Advista Indonesia Tbk.	Trading, Service
112	PSAB	J Resources Asia Pasifik Tbk.	Mining

No	Code	Name of Company	Industry
113	PSDN	Prasidha Aneka Niaga Tbk	Industrial Product
114	PTRO	Petrosea Tbk.	Mining
115	PWON	Pakuwon Jati Tbk.	Properties
116	RIGS	Rig Tenders Indonesia Tbk.	Transportation, Infrastructure
117	RMBA	Bentoel Internasional Investam	Industrial Product
118	RODA	Pikko Land Development Tbk.	Properties
119	SCBD	Danayasa Arthatama Tbk.	Properties
120	SCMA	Surya Citra Media Tbk.	Trading, Service
121	SCPI	Merck Sharp Dohme Pharma Tbk.	Industrial Product
122	SDPC	Millennium Pharmacon Internati	Trading, Service
123	SGRO	Sampoerna Agro Tbk.	Plantation
124	SHID	Hotel Sahid Jaya International	Trading, Service
125	SKLT	Sekar Laut Tbk.	Industrial Product
126	SMCB	Holcim Indonesia Tbk.	Others
127	SMDM	Suryamas Dutamakmur Tbk.	Properties
128	SMMT	Golden Eagle Energy Tbk.	Mining
129	SONA	Sona Topas Tourism Industry Tb	Trading, Service
130	SQMI	Renuka Coalindo Tbk.	Trading, Service
131	SRSN	Indo Acidatama Tbk	Others
132	TBMS	Tembaga Mulia Semanan Tbk.	Others
133	TCID	Mandom Indonesia Tbk.	Industrial Product
134	TFCO	Tifico Fiber Indonesia Tbk.	Others

No	Code	Name of Company	Industry
135	TOTO	Surya Toto Indonesia Tbk.	Others
136	TPIA	Chandra Asri Petrochemical Tbk	Others
137	UNIT	Nusantara Inti Corpora Tbk	Others
138	UNTR	United Tractors Tbk.	Trading, Service
139	UNTX	Unitex Tbk.	Others
140	UNVR	Unilever Indonesia Tbk.	Industrial Product
141	VOKS	Voksel Electric Tbk.	Others
142	WICO	Wicaksana Overseas Internation	Trading, Service
143	ZBRA	Zebra Nusantara Tbk	Transportation, Infrastructure
135	TOTO	Surya Toto Indonesia Tbk.	Others
136	TPIA	Chandra Asri Petrochemical Tbk	Others
137	UNIT	Nusantara Inti Corpora Tbk	Others
138	UNTR	United Tractors Tbk.	Trading, Service
139	UNTX	Unitex Tbk.	Others
140	UNVR	Unilever Indonesia Tbk.	Industrial Product
141	VOKS	Voksel Electric Tbk.	Others
142	WICO	Wicaksana Overseas Internation	Trading, Service
143	ZBRA	Zebra Nusantara Tbk	Transportation, Infrastructure

APPENDIX A2: List of Indonesian family-controlled companies

No	Code	Name of Company	Industry
1	ABBA	Mahaka Media Tbk.	Trading, Service
2	ACES	Ace Hardware Indonesia Tbk.	Trading, Service
3	ADMG	Polychem Indonesia Tbk	Others
4	ADRO	Adaro Energy Tbk.	Mining
5	AIMS	Akbar Indo Makmur Stimec Tbk	Trading, Service
6	AKRA	AKR Corporindo Tbk.	Trading, Service
7	ALMI	Alumindo Light Metal Industry	Others
8	APLI	Asiaplast Industries Tbk.	Others
9	APOL	Arpeni Pratama Ocean Line Tbk.	Transportation, Infrastructure
10	ARGO	Argo Pantes Tbk	Others
11	ARTI	Ratu Prabu Energi Tbk	Mining
12	ASRI	Alam Sutera Realty Tbk.	Properties
13	BAPA	Bekasi Asri Pemula Tbk.	Properties
14	BIMA	Primarindo Asia Infrastructure	Others
15	BISI	BISI International Tbk.	Plantation
16	BKDP	Bukit Darmo Property Tbk	Properties
17	BLTA	Berlian Laju Tanker Tbk	Transportation, Infrastructure
18	BRNA	Berlina Tbk.	Others
19	BTEK	Bumi Teknokultura Unggul Tbk	Plantation
20	BUDI	Budi Starch & Sweetener Tbk.	Others
21	CMPP	Centris Multipersada Pratama T	Trading, Service
22	CNKO	Exploitasi Energi Indonesia Tb	Trading, Service

No	Code	Name of Company	Industry
23	COWL	Cowell Development Tbk.	Properties
24	CPIN	Charoen Pokphand Indonesia Tbk	Others
25	CPRO	Central Proteina Prima Tbk.	Plantation
26	CSAP	Catur Sentosa Adiprana Tbk.	Trading, Service
27	CTRA	Ciputra Development Tbk.	Properties
28	DGIK	Nusa Konstruksi Enjiniring Tbk	Properties
29	DNET	Indoritel Makmur Internasional	Trading, Service
30	DPNS	Duta Pertiwi Nusantara Tbk.	Others
31	DSFI	Dharma Samudera Fishing Indust	Plantation
32	DUTI	Duta Pertiwi Tbk	Properties
33	EKAD	Ekadharma International Tbk.	Others
34	ESTI	Ever Shine Tex Tbk.	Others
35	FAST	Fast Food Indonesia Tbk.	Trading, Service
36	FASW	Fajar Surya Wisesa Tbk.	Others
37	FISH	FKS Multi Agro Tbk.	Trading, Service
38	FMII	Fortune Mate Indonesia Tbk	Properties
39	GEMA	Gema Grahasarana Tbk.	Trading, Service
40	GGRM	Gudang Garam Tbk.	Industrial Product
41	GMTD	Gowa Makassar Tourism Development Tbk.	Properties
42	GPRA	Perdana Gapuraprima Tbk.	Properties
43	HITS	Humpuss Intermoda Transportasi	Transportation, Infrastructure
44	HOME	Hotel Mandarine Regency Tbk.	Trading, Service

No	Code	Name of Company	Industry
45	IKAI	Intikeramik Alamasri Industri	Others
46	IMAS	Indomobil Sukses Internasional	Others
47	INAI	Indal Aluminium Industry Tbk.	Others
48	INCI	Intanwijaya Internasional Tbk	Others
49	INDR	Indo-Rama Synthetics Tbk.	Others
50	INDS	Indospring Tbk.	Others
51	INDY	Indika Energy Tbk.	Transportation, Infrastructure
52	INKP	Indah Kiat Pulp & Paper Tbk.	Others
53	JECC	Jembo Cable Company Tbk.	Others
54	JKON	Jaya Konstruksi Manggala Prata	Trading, Service
55	JKSW	Jakarta Kyoei Steel Works Tbk.	Others
56	JRPT	Jaya Real Property Tbk.	Properties
57	JSPT	Jakarta Setiabudi Internasiona	Trading, Service
58	JTPE	Jasuindo Tiga Perkasa Tbk.	Trading, Service
59	KDSI	Kedawung Setia Industrial Tbk.	Others
60	KICI	Kedaung Indah Can Tbk	Industrial Product
61	KONI	Perdana Bangun Pusaka Tbk	Trading, Service
62	LAMI	Lamicitra Nusantara Tbk.	Properties
63	LPCK	Lippo Cikarang Tbk	Properties
64	LTLS	Lautan Luas Tbk.	Trading, Service
65	MAPI	Mitra Adiperkasa Tbk.	Trading, Service
66	META	Nusantara Infrastructure Tbk.	Transportation, Infrastructure
67	MICE	Multi Indocitra Tbk.	Trading, Service

No	Code	Name of Company	Industry
68	MLIA	Mulia Industrindo Tbk	Others
69	MRAT	Mustika Ratu Tbk.	Industrial Product
70	MTSM	Metro Realty Tbk.	Properties
71	MYOR	Mayora Indah Tbk.	Industrial Product
72	NIPS	Nipress Tbk.	Others
73	OKAS	Ancora Indonesia Resources Tbk	Trading, Service
74	PANR	Panorama Sentrawisata Tbk.	Trading, Service
75	PBRX	Pan Brothers Tbk.	Others
76	PDES	Destinasi Tirta Nusantara Tbk	Trading, Service
77	PGLI	Pembangunan Graha Lestari Inda	Trading, Service
78	PKPK	Perdana Karya Perkasa Tbk	Mining
79	PNSE	Pudjiadi & Sons Tbk.	Trading, Service
80	PRAS	Prima Alloy Steel Universal Tb	Others
81	PTSN	Sat Nusapersada Tbk	Others
82	PUDP	Pudjiadi Prestige Tbk.	Properties
83	PYFA	Pyridam Farma Tbk	Industrial Product
84	RAJA	Rukun Raharja Tbk.	Transportation, Infrastructure
85	RALS	Ramayana Lestari Sentosa Tbk.	Trading, Service
86	RBMS	Ristia Bintang Mahkotasejati T	Properties
87	RDTX	Roda Vivatex Tbk	Properties
88	RUIS	Radiant Utama Interinsco Tbk.	Mining
89	SAFE	Steady Safe Tbk	Transportation, Infrastructure
90	SCCO	Supreme Cable Manufacturing &	Others

No	Code	Name of Company	Industry
91	SIAP	Sekawan Intipratama Tbk	Others
92	SIMA	Siwani Makmur Tbk	Others
93	SMAR	Smart Tbk.	Plantation
94	SMDR	Samudera Indonesia Tbk.	Transportation, Infrastructure
95	SMSM	Selamat Sempurna Tbk.	Others
96	SOBI	Sorini Agro Asia Corporindo Tb	Others
97	SPMA	Suparma Tbk.	Others
98	SSTM	Sunson Textile Manufacture Tbk	Others
99	STTP	Siantar Top Tbk.	Industrial Product
100	SULI	SLJ Global Tbk.	Others
101	TBLA	Tunas Baru Lampung Tbk.	Plantation
102	TGKA	Tigaraksa Satria Tbk.	Trading, Service
103	TIRA	Tira Austenite Tbk	Trading, Service
104	TIRT	Tirta Mahakam Resources Tbk	Others
105	TKGA	Permata Prima Sakti Tbk.	Mining
106	TKIM	Pabrik Kertas Tjiwi Kimia Tbk.	Others
107	TMAS	Pelayaran Tempuran Emas Tbk.	Transportation, Infrastructure
108	TMPO	Tempo Intimedia Tbk.	Trading, Service
109	TOTL	Total Bangun Persada Tbk.	Properties
110	TRAM	Trada Maritime Tbk.	Transportation, Infrastructure
111	TRIL	Triwira Insanlestari Tbk.	Trading, Service
112	TRST	Trias Sentosa Tbk.	Others
113	TRUB	Truba Alam Manungga Engineeri	Transportation, Infrastructure

No	Code	Name of Company	Industry
114	TSPC	Tempo Scan Pacific Tbk.	Industrial Product
115	TURI	Tunas Ridean Tbk.	Trading, Service
116	ULTJ	Ultra Jaya Milk Industry & Tra	Industrial Product
117	UNIC	Unggul Indah Cahaya Tbk.	Others
118	WEHA	Panorama Transportasi Tbk	Transportation, Infrastructure
119	YPAS	Yanaprima Hastapersada Tbk	Others

APENDIX B: List of industry type

Panel A. Sector Industrial Product		
No	**Code**	**Name of Company**
1	ADES	Akasha Wira International Tbk.
2	RMBA	Bentoel Internasional Investam
3	DVLA	Darya-Varia Laboratoria Tbk.
4	DLTA	Delta Djakarta Tbk.
5	GGRM	Gudang Garam Tbk.
6	INAF	Indofarma Tbk.
7	INDF	Indofood Sukses Makmur Tbk.
8	KICI	Kedaung Indah Can Tbk
9	TCID	Mandom Indonesia Tbk.
10	MYOR	Mayora Indah Tbk.
11	SCPI	Merck Sharp Dohme Pharma Tbk.
12	MERK	Merck Tbk.
13	MLBI	Multi Bintang Indonesia Tbk.
14	MRAT	Mustika Ratu Tbk.
15	PSDN	Prasidha Aneka Niaga Tbk
16	PYFA	Pyridam Farma Tbk
17	SKLT	Sekar Laut Tbk.
18	STTP	Siantar Top Tbk.
19	TSPC	Tempo Scan Pacific Tbk.
20	ULTJ	Ultra Jaya Milk Industry & Tra
21	UNVR	Unilever Indonesia Tbk.
22	CEKA	Wilmar Cahaya Indonesia Tbk.

Industrial Products - Properties		
1	ASRI	Alam Sutera Realty Tbk.
2	BAPA	Bekasi Asri Pemula Tbk.
3	BIPP	Bhuwanatala Indah Permai Tbk.
4	BKDP	Bukit Darmo Property Tbk
5	BCIP	Bumi Citra Permai Tbk.
6	CTRA	Ciputra Development Tbk.
7	CTRP	Ciputra Property Tbk.
8	CTRS	Ciputra Surya Tbk.
9	COWL	Cowell Development Tbk.
10	SCBD	Danayasa Arthatama Tbk.
11	DART	Duta Anggada Realty Tbk.
12	DUTI	Duta Pertiwi Tbk
13	FMII	Fortune Mate Indonesia Tbk
14	GMTD	Gowa Makassar Tourism Developm
15	OMRE	Indonesia Prima Property Tbk
16	DILD	Intiland Development Tbk.
17	JRPT	Jaya Real Property Tbk.
18	LAMI	Lamicitra Nusantara Tbk.
19	LPCK	Lippo Cikarang Tbk
20	MTSM	Metro Realty Tbk.
21	MKPI	Metropolitan Kentjana Tbk.
22	DGIK	Nusa Konstruksi Enjiniring Tbk
23	PWON	Pakuwon Jati Tbk.
24	GPRA	Perdana Gapuraprima Tbk.
25	RODA	Pikko Land Development Tbk.
26	PLIN	Plaza Indonesia Realty Tbk.
27	PUDP	Pudjiadi Prestige Tbk.
28	RBMS	Ristia Bintang Mahkotasejati T
29	RDTX	Roda Vivatex Tbk
30	BKSL	Sentul City Tbk.
31	SMDM	Suryamas Dutamakmur Tbk.
32	TOTL	Total Bangun Persada Tbk.

Panel B. Sector Trading and Service

Sector Trading, Service		
1	ACES	Ace Hardware Indonesia Tbk.
2	AIMS	Akbar Indo Makmur Stimec Tbk
3	AKRA	AKR Corporindo Tbk.
4	OKAS	Ancora Indonesia Resources Tbk
5	ASIA	Asia Natural Resources Tbk
6	ASGR	Astra Graphia Tbk.
7	BNBR	Bakrie & Brothers Tbk
8	BAYU	Bayu Buana Tbk
9	BMSR	Bintang Mitra Semestaraya Tbk
10	CSAP	Catur Sentosa Adiprana Tbk.
11	CMPP	Centris Multipersada Pratama T
12	CLPI	Colorpak Indonesia Tbk.
13	PDES	Destinasi Tirta Nusantara Tbk
14	DSSA	Dian Swastatika Sentosa Tbk
15	EPMT	Enseval Putera Megatrading Tbk
16	CNKO	Exploitasi Energi Indonesia Tb
17	FAST	Fast Food Indonesia Tbk.
18	KBLV	First Media Tbk.
19	FISH	FKS Multi Agro Tbk.
20	FORU	Fortune Indonesia Tbk
21	GEMA	Gema Grahasarana Tbk.
22	BMTR	Global Mediacom Tbk.
23	GMCW	Grahamas Citrawisata Tbk.
24	HERO	Hero Supermarket Tbk.
25	HEXA	Hexindo Adiperkasa Tbk.
26	HOME	Hotel Mandarine Regency Tbk.
27	SHID	Hotel Sahid Jaya International
28	INPP	Indonesian Paradise Property T
29	DNET	Indoritel Makmur Internasional
30	INTD	Inter Delta Tbk

Sector Trading, Service		
31	INTA	Intraco Penta Tbk.
32	ICON	Island Concepts Indonesia Tbk.
33	JSPT	Jakarta Setiabudi Internasiona
34	JTPE	Jasuindo Tiga Perkasa Tbk.
35	JKON	Jaya Konstruksi Manggala Prata
36	KOIN	Kokoh Inti Arebama Tbk
37	LTLS	Lautan Luas Tbk.
38	ITTG	Leo Investments Tbk.
39	LMAS	Limas Centric Indonesia Tbk
40	ABBA	Mahaka Media Tbk.
41	MAMI	Mas Murni Indonesia Tbk
42	LPPF	Matahari Department Store Tbk.
43	MPPA	Matahari Putra Prima Tbk.
44	MNCN	Media Nusantara Citra Tbk.
45	MTDL	Metrodata Electronics Tbk.
46	SDPC	Millennium Pharmacon Internati
47	MAPI	Mitra Adiperkasa Tbk.
48	KPIG	MNC Land Tbk.
49	MICE	Multi Indocitra Tbk.
50	MLPL	Multipolar Tbk.
51	PANR	Panorama Sentrawisata Tbk.
52	PGLI	Pembangunan Graha Lestari Inda
53	KONI	Perdana Bangun Pusaka Tbk
54	PLAS	Polaris Investama Tbk
55	POOL	Pool Advista Indonesia Tbk.
56	PNSE	Pudjiadi & Sons Tbk.
57	RALS	Ramayana Lestari Sentosa Tbk.
58	SQMI	Renuka Coalindo Tbk.
59	SONA	Sona Topas Tourism Industry Tb
60	LPLI	Star Pacific Tbk
61	AMRT	Sumber Alfaria Trijaya Tbk.
62	ITMA	Sumber Energi Andalan Tbk.

Sector Trading, Service		
63	SCMA	Surya Citra Media Tbk.
64	TMPO	Tempo Intimedia Tbk.
65	TGKA	Tigaraksa Satria Tbk.
66	TIRA	Tira Austenite Tbk
67	TRIL	Triwira Insanlestari Tbk.
68	TURI	Tunas Ridean Tbk.
69	UNTR	United Tractors Tbk.
70	WICO	Wicaksana Overseas Internation

Panel C. Others

Others - Mining		
1	ADRO	Adaro Energy Tbk.
2	ATPK	ATPK Resources Tbk.
3	BYAN	Bayan Resources Tbk.
4	BUMI	Bumi Resources Tbk.
5	CKRA	Cakra Mineral Tbk.
6	DKFT	Central Omega Resources Tbk.
7	CITA	Cita Mineral Investindo Tbk.
8	DEWA	Darma Henwa Tbk
9	DOID	Delta Dunia Makmur Tbk.
10	ENRG	Energi Mega Persada Tbk.
11	GTBO	Garda Tujuh Buana Tbk
12	SMMT	Golden Eagle Energy Tbk.
13	ITMG	Indo Tambangraya Megah Tbk.
14	PSAB	J Resources Asia Pasifik Tbk.
15	MEDC	Medco Energi International Tbk
16	MITI	Mitra Investindo Tbk.
17	PKPK	Perdana Karya Perkasa Tbk
18	TKGA	Permata Prima Sakti Tbk.
19	PTRO	Petrosea Tbk.
20	RUIS	Radiant Utama Interinsco Tbk.
21	ARTI	Ratu Prabu Energi Tbk

Others - Mining		
22	KKGI	Resource Alam Indonesia Tbk.
23	MYOH	Samindo Resources Tbk.
24	INCO	Vale Indonesia Tbk.

Others - Plantation		
1	AALI	Astra Agro Lestari Tbk.
2	BISI	BISI International Tbk.
3	BTEK	Bumi Teknokultura Unggul Tbk
4	BWPT	BW Plantation Tbk.
5	CPRO	Central Proteina Prima Tbk.
6	DSFI	Dharma Samudera Fishing Indust
7	GZCO	Gozco Plantations Tbk.
8	LSIP	PP London Sumatra Indonesia Tb
9	SGRO	Sampoerna Agro Tbk.
10	SMAR	Smart Tbk.
11	TBLA	Tunas Baru Lampung Tbk.

Others - Transportation, Infrastructure		
1	APOL	Arpeni Pratama Ocean Line Tbk.
2	BLTA	Berlian Laju Tanker Tbk
3	HITS	Humpuss Intermoda Transportasi
4	KARW	ICTSI Jasa Prima Tbk.
5	INDY	Indika Energy Tbk.
6	ISAT	Indosat Tbk.
7	INVS	Inovisi Infracom Tbk.
8	LAPD	Leyand International Tbk.
9	META	Nusantara Infrastructure Tbk.
10	WEHA	Panorama Transportasi Tbk
11	TMAS	Pelayaran Tempuran Emas Tbk.

Others - Transportation, Infrastructure		
12	PGAS	Perusahaan Gas Negara (Persero
13	RIGS	Rig Tenders Indonesia Tbk.
14	RAJA	Rukun Raharja Tbk.
15	SMDR	Samudera Indonesia Tbk.
16	FREN	Smartfren Telecom Tbk.
17	SAFE	Steady Safe Tbk
18	INDX	Tanah Laut Tbk
19	TRAM	Trada Maritime Tbk.
20	TRUB	Truba Alam Manunggal Engineeri
21	EXCL	XL Axiata Tbk.
22	ZBRA	Zebra Nusantara Tbk

Others		
1	ALKA	Alakasa Industrindo Tbk
2	AKKU	Alam Karya Unggul Tbk.
3	ALMI	Alumindo Light Metal Industry
4	MYTX	Apac Citra Centertex Tbk
5	ARGO	Argo Pantes Tbk
6	AMFG	Asahimas Flat Glass Tbk.
7	APLI	Asiaplast Industries Tbk.
8	ASII	Astra International Tbk.
9	AUTO	Astra Otoparts Tbk.
10	BRPT	Barito Pacific Tbk.
11	BRNA	Berlina Tbk.
12	BTON	Betonjaya Manunggal Tbk.

Others		
13	BUDI	Budi Starch & Sweetener Tbk.
14	CNTX	Century Textile Industry Tbk.
15	IGAR	Champion Pacific Indonesia Tbk
16	TPIA	Chandra Asri Petrochemical Tbk
17	CPIN	Charoen Pokphand Indonesia Tbk
18	CTBN	Citra Tubindo Tbk.
19	DPNS	Duta Pertiwi Nusantara Tbk.
20	EKAD	Ekadharma International Tbk.
21	ERTX	Eratex Djaja Tbk.
22	ETWA	Eterindo Wahanatama Tbk
23	ESTI	Ever Shine Tex Tbk.
24	FASW	Fajar Surya Wisesa Tbk.
25	GJTL	Gajah Tunggal Tbk.
26	GDYR	Goodyear Indonesia Tbk.
27	GDST	Gunawan Dianjaya Steel Tbk.
28	SMCB	Holcim Indonesia Tbk.
29	INKP	Indah Kiat Pulp & Paper Tbk.
30	INAI	Indal Aluminium Industry Tbk.
31	SRSN	Indo Acidatama Tbk
32	BRAM	Indo Kordsa Tbk.
33	INTP	Indocement Tunggal Prakasa Tbk
34	IMAS	Indomobil Sukses Internasional
35	INDR	Indo-Rama Synthetics Tbk.
36	INDS	Indospring Tbk.
37	INCI	Intanwijaya Internasional Tbk
38	IKAI	Intikeramik Alamasri Industri

Others		
39	JKSW	Jakarta Kyoei Steel Works Tbk.
40	JPFA	Japfa Comfeed Indonesia Tbk.
41	JPRS	Jaya Pari Steel Tbk
42	JECC	Jembo Cable Company Tbk.
43	KDSI	Kedawung Setia Industrial Tbk.
44	KIAS	Keramika Indonesia Assosiasi T
45	KBLI	KMI Wire & Cable Tbk.
46	LION	Lion Metal Works Tbk.
47	LMSH	Lionmesh Prima Tbk.
48	FPNI	Lotte Chemical Titan Tbk.
49	MAIN	Malindo Feedmill Tbk.
50	MLIA	Mulia Industrindo Tbk
51	LPIN	Multi Prima Sejahtera Tbk
52	NIPS	Nipress Tbk.
53	UNIT	Nusantara Inti Corpora Tbk
54	TKIM	Pabrik Kertas Tjiwi Kimia Tbk.
55	PBRX	Pan Brothers Tbk.
56	HDTX	Panasia Indo Resources Tbk.
57	PICO	Pelangi Indah Canindo Tbk
58	NIKL	Pelat Timah Nusantara Tbk.
59	ADMG	Polychem Indonesia Tbk
60	PRAS	Prima Alloy Steel Universal Tb
61	BIMA	Primarindo Asia Infrastructure
62	PTSN	Sat Nusapersada Tbk
63	SIAP	Sekawan Intipratama Tbk
64	SMSM	Selamat Sempurna Tbk.

Others		
65	SIMA	Siwani Makmur Tbk
66	SULI	SLJ Global Tbk.
67	SOBI	Sorini Agro Asia Corporindo Tbk
68	IKBI	Sumi Indo Kabel Tbk.
69	SSTM	Sunson Textile Manufacture Tbk
70	SPMA	Suparma Tbk.
71	SCCO	Supreme Cable Manufacturing &
72	TOTO	Surya Toto Indonesia Tbk.
73	TBMS	Tembaga Mulia Semanan Tbk.
74	TFCO	Tifico Fiber Indonesia Tbk.
75	TIRT	Tirta Mahakam Resources Tbk
76	INRU	Toba Pulp Lestari Tbk.
77	TRST	Trias Sentosa Tbk.
78	UNIC	Unggul Indah Cahaya Tbk.
79	UNTX	Unitex Tbk.
80	VOKS	Voksel Electric Tbk.
81	YPAS	Yanaprima Hastapersada Tbk

APPENDIX C: Literature Matrix

No.	Country	Author	Sample Size	Year of Study	Finding
1	Pakistan	Abdullah, Shah, and Hassan (2008)	452	2003-2006	Companies which managed by family is better performed than companies which managed by non-family in overall condition.
2	Malaysia	Amran and Che-Ahmad (2011)	189	2003-2007	Non-family controlled Malaysia companies seem to have small boards rather than large boards because small board size enhances the firm value.
3	Malaysia, Singapore, Hong Kong and Taiwan	Chen and Nowland (2010)	100	1998-2004	Board size is significantly higher in family controlled companies because the monitoring of the board still weak.
4	United States	Schulze, Lubaktin, Dino and Buchholtz (2001)	1376	1995	Family-managed firms incur agency cost
5	Indonesia	Darmadi (2013)	383	2008-2009	Companies which managed by family is better performed than companies which managed by non-family in overall condition.
6	United States	Demsetz and Lehn (1985)	511	1976-1980	There has no significant influence of ownership concentration and profit return.
7	Hong Kong	Chen, Cheng and Hwang (2005)	412	1995-1998	There is no positive relationship between family ownership and ROA, ROE or Tobin's Q
8	Spain	Gorriz and Fumas (1996)	81	1990	Family firms on average have higher productive efficiency than non-family firms.

No.	Country	Author	Sample Size	Year of Study	Finding
9	United States	Horvath and Spirollari (2012)	Large US firms	2005-2009	Large firm prefer have a large board than small board because they expected large board can give benefit for solving the problem.
10	Malaysia	Haniffa and Hudaib (2006)	347	1996-2000	Small board is expected outperformed than large board.
11	Indonesia	Harjito and Singapurwoko (2014)	20	2001	Companies which managed by family is better performed than companies which managed by non-family.
12	Malaysia	Ibrahim, Samad, and Amir (2009)	290	1999-2005	There is a strong relationship of small boards with firm performance for both family and non-family companies.
13	Malaysia	Ishak, Haron, Salleh, and Rashid (2011)	236	2009	Board structure may limit the extent of earnings management practices also will be followed by an increasing stock price and value of company.
14	Indonesia	Itan (2015)	152	2009-2014	Business which control by non-family members are more favour than business which control by family when we trace into performance indicators.
15	Chile	Martinez, Stohr and Quiroga (2007)	175	1995-2004	Large board does not help the top management to monitoring the firm effectively.

No.	Country	Author	Sample Size	Year of Study	Finding
16	Argentina, Australia, Canada, Hongkong, Ireland, Japan, New Zealand, Norway, Singapore, Spain, UK, US, Austria, Belgium, Denmark, Finland, France, Germany, Greece, Israel, Italy, South Korea, Mexico, Netherlands, Portugal, Switzerland	La Porta, Lopez-De-Silanes and Shleifer (1999)	54	1995	Families or the state typically controls the firms. Controlling shareholders have power over firms.
17	United States	Miller and Breton-Miller (2006)	Large & publicly traded family businesses	N.A.	Family firm do best when they take advantage of the potential for lower agency costs.
18	China	Mishra and Ratti (2011)	Companies China a	2001-2006	Small boards are more effectively than large board because a small board in a company contribute higher Tobin's Q than large boards

No.	Country	Author	Sample Size	Year of Study	Finding
19	Fortune 500	Pearce & Zahra (1992)	119	1983-1989	Large boards can give more resource, have high solving problem capability, provides advice and strategy for firm to increasing the firm performance.
20	India	Sindhuja (2009)	115	2007	Business which control by non-family members are more favour than business which control by family when we trace into performance indicators
21	UK	Westhead & Cowling (1997)	427	1991-1994	There has no any significant in company performance when we compare between companies which managed by family and companies which managed by non-family.
22	United Stated	Yermack (1996)	452	1984-1991	large board are not enhance the firm performance and reduce the firm value because large board will caused an inefficient when take a decision
23	Malaysia	Zainal Abidin et al. (2009)	75	2003	Large boards appear to be more effective compare than small boards.
24	HongKong, Indonesia, Japan, South Korea, Malaysia, Philippines, Singapore, Thailand, and Taiwan	Claessens et al. (2000)	2980	1998	The separation of ownership and control is most pronounced among family controlled firms.

No.	Country	Author	Sample Size	Year of Study	Finding
25	United States	Kets de Vries (1993)	300	N.A	Difficult for founder to accept his or her own mortality and to let go the power.
26	Thailand	Yammeesri & Lodh (2004)	243	1993-1996	A positive association between controlling ownership and firm performance.
27	Turkey	Mandaci & Gumus (2010)	203	2005	Ownership of Turkish firm is highly concentrated and it is belief to belong to individuals or families that have holding companies, in order to control their listed firms.

APPENDIX D: Summary for family-controlled companies

	H	Expected Sign	Q (p-value)	ROE (p-value)	Hypothesis Supported?
BSIZE	H_{2a}	-	-.0001***	-.0003***	Yes
BQUAL	H_{3a}	-	-.0015***	-.0125**	Yes
BMEET	H_{4a}	-	.0043**	.0097***	Significant with opposite direction (explanation are provided in text)
BEXP	H_{5a}	-	-.0128**	-.0041**	Yes
FDIR	H_{6a}	-	-.0376**	-.0294	Partial
MOWN	H_{7a}	+	.2181	.4883	No Significant
BCSIZE	H_{8a}	-	-.0489***	-.0334***	Yes
BCINDE	H_{9a}	-	.3657	-.0197**	Partial
ASIZE	H_{10a}	-	-.0315**	-.0402**	Yes
AINDE	H_{11a}	-	-.0446**	-.0361**	Yes
AMEET	H_{12a}	-	.0177**	.0276**	Significant with opposite direction (explanation are provided in text)
DEBT		-	-.0000***	-.0116**	

	H	Expected Sign	Q (p-value)	ROE (p-value)	Hypothesis Supported?
FAGE		+	-.0094***	-.0000***	
FSIZE		+	.0000***	.2304	
IP		+	.0752***	.0066*	
TS		+	.0434**	.0343**	
PROP		+	0.0062*	.0003***	
OTHERS		+	.0221**	0.0332**	
_CONS			.0049**	-.1317***	

APPENDIX E: Summary for non-family controlled companies

	H	Expected Sign	Q (p-value)	ROE (p-value)	Hypothesis Supported?
BSIZE	H_{2b}	+	.0472**	.0146**	Yes
BQUAL	H_{3b}	+	.0049***	.0435**	Yes
BMEET	H_{4b}	+	.0191**	.0447**	Yes
BEXP	H_{5b}	+	.0456**	.0367**	Yes
FDIR	H_{6b}	+	.0014***	.0031***	Yes
MOWN	H_{7b}	-	.2988	.3138	Not significant
BCSIZE	H_{8b}	+	-.0383**	-.0143**	Significant with opposite direction (explanation are provided in text)
BCINDE	H_{9b}	+	.0212**	.0145**	Yes
ASIZE	H_{10b}	+	-.0357**	-.0438**	Significant with opposite direction (explanation are provided in text)
AINDE	H_{11b}	+	.0407**	.5247	Partial
AMEET	H_{12b}	+	.0218**	.0418**	Yes
DEBT		-	-.0000***	.0312**	

	H	Expected Sign	Q (p-value)	ROE (p-value)	Hypothesis Supported?
FAGE		+	.2140	.3009	
FSIZE		+	.0003***	.0467**	
IP		+	.0124**	.0214**	
TS		+	.0241**	0.7410	
PROP		+	.0024***	.0014***	
OTHERS		+	.0125**	.0254**	
_CONS			.0000***	.0521*	